



WIRING DIAGRAMS AND PARTS LISTINGS

FOR SERIES **AT** AUTOMATIC TRANSFER SWITCHES

30 THROUGH 400 AMPERES



FOR SERVICE ORGANIZATION USE ONLY

(Factory... Distributor... Dealer)



WIRING DIAGRAMS/PARTS LISTING FOR SERIES "AT" AUTOMATIC TRANSFER SWITCHES

All of the wiring diagrams apply to AT automatic transfer switches and should be used for service and parts information. Before using the diagrams, read the explanation and description given below.

Following is a typical model number with explanations of the parts which identify the automatic transfer switch group of wiring diagrams.

ATUCA 200 - 4X/1110 B

1 2 3

1. Transfer switch and cabinet combination.
2. Control accessory group.
3. Meter lamp combination.

To find the wiring diagram in question, proceed to the index page shown below corresponding with the particular wiring diagram group for the automatic transfer switch. Wiring diagrams for the modules of the control accessory panel are also in the last section.

Wiring Diagrams For	See Index Page
Transfer Switch — Cabinets	2
Control Accessory Panels	27
Meter-Lamp Panels	68
Modules	121

For service information, see the AT service manual,
number 962-0500.

TRANSFER SWITCH — CABINETS

DIAGRAM

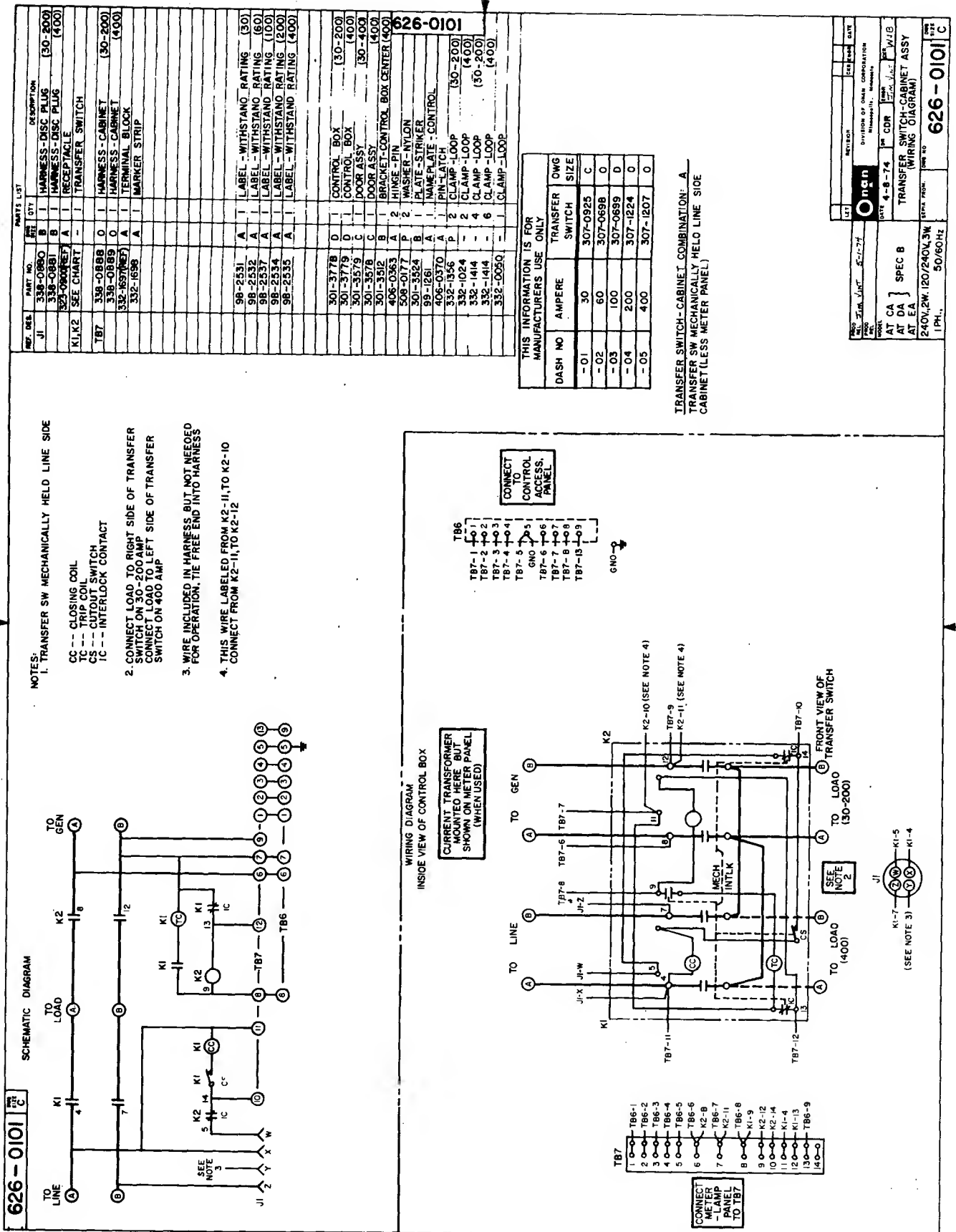
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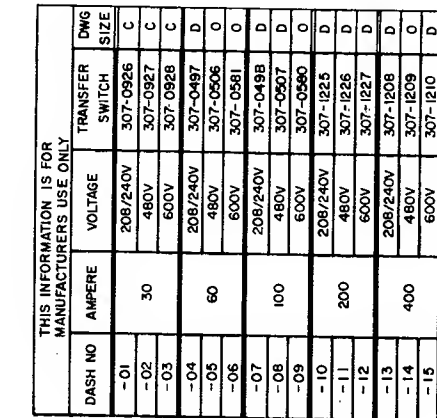
Begin Spec B

626-0101	Combination A, 1 Phase.....	3
626-0102	Combination A, 3 Phase.....	4
626-0103	Combination B, 1 Phase.....	5
626-0104	Combination B, 3 Phase.....	6
626-0105	Combination C, 1 Phase.....	7
626-0106	Combination C, 3 Phase.....	8
626-0107	Combination D, 1 Phase.....	9
626-0108	Combination D, 3 Phase.....	10
626-0151	Combination E, 1 Phase.....	11
626-0152	Combination E, 3 Phase.....	12
626-0153	Combination F, 1 Phase.....	13
626-0154	Combination F, 3 Phase.....	14
626-0155	Combination G, 1 Phase.....	15
626-0156	Combination G, 3 Phase.....	16
626-0157	Combination H, 1 Phase.....	17
626-0158	Combination H, 3 Phase.....	18

Spec A

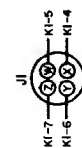
626-0001	Combination A, 1 Phase.....	19
626-0002	Combination A, 3 Phase.....	20
626-0003	Combination B, 1 Phase.....	21
626-0004	Combination B, 3 Phase.....	22
626-0005	Combination C, 1 Phase.....	23
626-0006	Combination C, 3 Phase.....	24
626-0007	Combination D, 1 Phase.....	25
626-0008	Combination D, 3 Phase.....	26





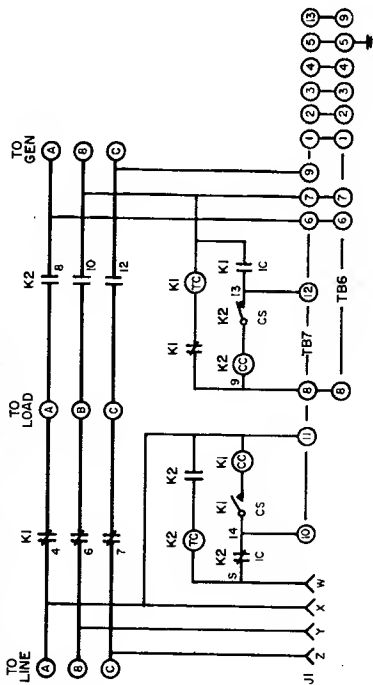
REF. DES.	PART NO.	QTY	PARTS LIST	DESCRIPTION
J1	338-0880	B		HARNISS-DISC PLUG (30-200)
	338-DB81	B		HARNISS-DISC PLUG (400)
	323-0900637	A		RECEPTACLE
K1,K2	SEE CHART	A		TRANSFER SWITCH
T87	338-0888	D		HARNISS-CABINET
	338-0889	D		HARNISS-CABINET
	332-8897(857)	A		TERMINAL BLOCK
	332-1636	A		MARKER STRIP
	98-2531	A		LABEL-WITHSTAND RATING (30)
	98-2532	A		LABEL-WITHSTAND RATING (60)
	98-2537	A		LABEL-WITHSTAND RATING (100)
	98-2534	A		LABEL-WITHSTAND RATING (200)
	98-2535	A		LABEL-WITHSTAND RATING (400)
	301-377B	D		CONTROL BOX (30-200)
	301-3779	O		CONTROL BOX (400)
	301-3579	C		DOOR ASSY (30-400)
	301-3578	C		DOOR ASSY (400)
	301-3312	B		BRACKET-CONTROL BOX CENTER (400)
	406-0363	A		HINGE-PIN
	508-0172	P		WASHER-NYLON
	301-3524	B		PLATE-STRIKER
	99-1261	A		NAMEPLATE-CONTROL
	406-0370	A		PIN-LATCH
	332-1356	P		CLAMP-LOOP (30-200)
	332-1024	2		CLAMP-LOOP (400)
	332-1414	-		CLAMP-LOOP (30-200)
	332-1414	-		CLAMP-LOOP (400)
	332-0050	-		CLAMP-LOOP

TRANSFER SWITCH - CABINET COMBINATION: A
TRANSFER SW MECHANICALLY HELD LINE SIDE
CABINET (LESS METER PANEL)

[illegible]

626-0104

SCHEMATIC DIAGRAM



THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
OASH NO	AMPERE	VOLTAGE	TRANSFER SWITCH SIZE
-01	30	208/240V	307-0931 C
-02	30	480V	307-0932 C
-03	60	600V	307-0933 C
-04	60	208/240V	307-0783 O
-05	60	480V	307-0846 D
-06	60	600V	307-1255 D
-07	100	208/240V	307-0784 D
-08	100	480V	307-0803 D
-09	100	600V	307-0894 O
-10	200	208/240V	307-1234 O
-11	200	480V	307-1232 O
-12	400	600V	307-1256 O
-13	400	208/240V	307-1221 D
-14	400	480V	307-1222 D
-15	400	600V	307-1223 D

REF. DES.	PART NO	QTY	DESCRIPTION	QTY
J1	338-0880	B	HARNES- DISC PLUG	(30-200)
	338-0881	B	HARNES- DISC PLUG	(400)
K1, K2	323-0800	A	RECEPTACLE	
	SEE CHART	-	TRANSFER SWITCH	
TB7	338-0888	O	HARNES- CABINET	(30-200)
	338-0889	D	HARNES- CABINET	(400)
	332-1697	A	TERMINAL BLOCK	
	332-1698	A	MARKER STRIP	
	98-2531	A	LABEL- WITHSTAND RATING	(30)
	98-2532	A	LABEL- WITHSTAND RATING	(60)
	98-2533	A	LABEL- WITHSTAND RATING	(100)
	98-2534	A	LABEL- WITHSTAND RATING	(200)
	98-2535	A	LABEL- WITHSTAND RATING	(400)
	301-3778	D	CONTROL BOX	(30-200)
	301-3779	D	CONTROL BOX	(400)
	301-3579	C	DOOR ASSY	(30-400)
	301-3578	C	DOOR ASSY	(400)
	301-3512	B	BRACKET- CONTROL BOX CENTER	(400)
	408-0363	A	HINGE- PIN	
	508-0177	P	WASHER- NYLON	
	301-3524	B	PLATE- STRIKER	
	99-1261	A	NAMEPLATE- CONTROL	
	408-0370	A	PIN- LATCH	(30-200)
	332-1356	P	CLAMP- LOOP	(400)
	332-1024	-	CLAMP- LOOP	(30-200)
	332-1414	-	CLAMP- LOOP	(400)
	332-1414	-	CLAMP- LOOP	(400)
	332-0050	-	CLAMP- LOOP	(400)

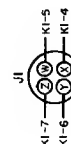
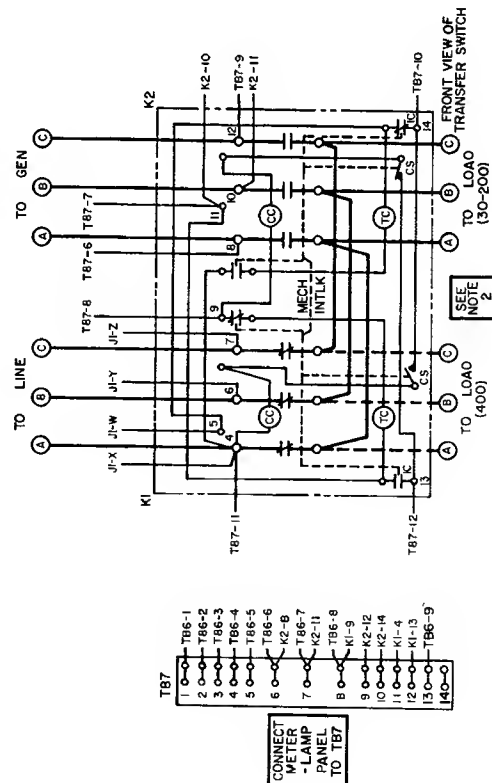
NOTES:
1. TRANSFER SW MECHANICALLY HELD BOTH SIDES
SHOWN LOCKED INTO NORMAL LINE
NORMAL LINE SHOWN DE-ENERGIZED
CC -- CLOSING COIL
CT -- TRIP COIL
IC -- INTERLOCK SWITCH
IC -- INTERLOCK CONTACT

2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER
SWITCH ON 30-200 AMP
CONNECT LOAD TO LEFT SIDE OF TRANSFER
SWITCH ON 400 AMP

TRANSFER SWITCH-CABINET COMBINATION: B
TRANSFER SW MECHANICALLY HELD BOTH SIDES
CABINET (LESS METER PANEL)

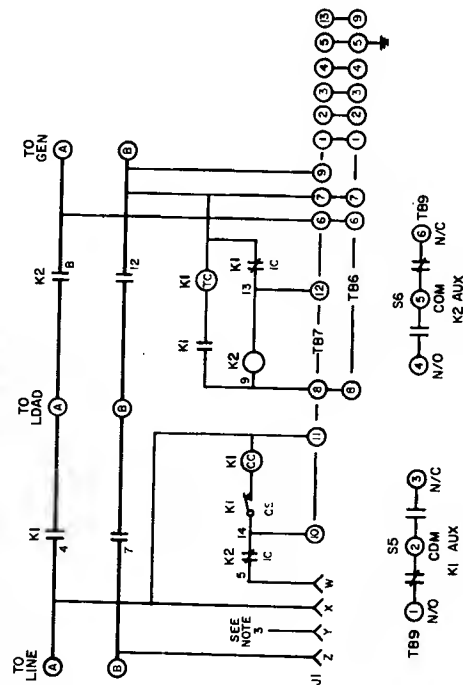
WIRING DIAGRAM
INSIDE VIEW OF CONTROL BOX

CURRENT TRANSFORMER
MOUNTED HERE BUT
SHOWN ON METER PANEL
(WHEN USED)



REV	DATE	BY	CHKD	DATE
1	4-12-74	RMS	CDR	
DIVISION OF ORAM CORPORATION				
PROJECT: TRANSFER SW - CABINET				
WIRING DIAGRAM				
208/240/480/600V, 3PH, 4W, 50/60HZ				
626-0104				

SCHEMATIC DIAGRAM



VOTES:-

1. TRANSFER SW MECHANICALLY HELD LINE SIDE
CC -- CLOSING COIL
CS -- CLOSING SWITCH
CS -- CUTOFF SWITCH
IC -- INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP
CONNECT TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP
3. WIRE INCLUDED IN HARNESS BUT NOT NEEDED FOR OPERATION, TIE FREE END INTO HARNESS
4. THIS WIRE LABELED FROM K2-11, TO K2-10
CONNECT FROM K2-11 TO K2-12

PARTS LIST

REF. DES.	PART NO.	QTY	DESCRIPTION	
J1	338-0880	A	HARNES5-D5C PLUG	(30-200)
	338-0881	B	HARNES5-D5C PLUG	(400)
	323-0900REF	A	RECEPTACLE	(400)
K1,K2	SEE CHART	-		
	307-0428	P	TRANSFER SWITCH	
	338-0888	2	AUXILIARY CONTACT	
TB7	338-0889	D	HARNES5-CABINET	(30-200)
	332-6697REF	A	HARNES5-CABINET	(400)
	332-1698	A	TERMINAL BLOCK	
	332-1698	A	MARKER STRIP	
TB9	338-0678	B	HARNES5-AUX CONTACT	(30-200)
	338-0674	D	HARNES5-AUX CONTACT	(400)
	332-0899REF	A	TERMINAL BLOCK	
	332-0730	A	MARKER STRIP	
	98-2531	A	LABEL - WITHSTAND. RATING	(30)
	98-2532	A	LABEL - WITHSTAND. RATING	(60)
	98-2537	A	LABEL - WITHSTAND. RATING	(100)
	98-2534	A	LABEL - WITHSTAND. RATING	(200)
	98-2535	A	LABEL - WITHSTAND. RATING	(400)
	301-3778	O	CONTROL BOX	(30-200)
	301-3779	C	CONTROL BOX	(400)
	301-3578	C	DOOR ASST	(30-400)
	301-3512	B	DOOR ASST	(400)
	406-0363	B	BRACKET-CONTROL BDX CENTER	(400)
	508-0177	P	HINGE-PIN	
	301-3524	P	WASHER-NYLON	
	98-1261	B	PLATE-STRIKER	
	406-0370	A	NAMEPLATE - CONTROL	
	332-1356	P	PIN-LATCH	(30-200)
	332-1024	2	CLAMP-LOOP	(400)
	332-1414	4	CLAMP-LOOP	(30-200)
	332-1414	6	CLAMP-LOOP	(400)
	332-0050	-	CLAMP-LOOP	

**THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY**

DASH NO	AMPERE	TRANSFER SWITCH	DWG SIZE
- 01	30	307-0925	C
- 02	60	307-0698	D
- 03	100	307-0699	D
- 04	200	307-1224	D
- 05	400	307-1207	D

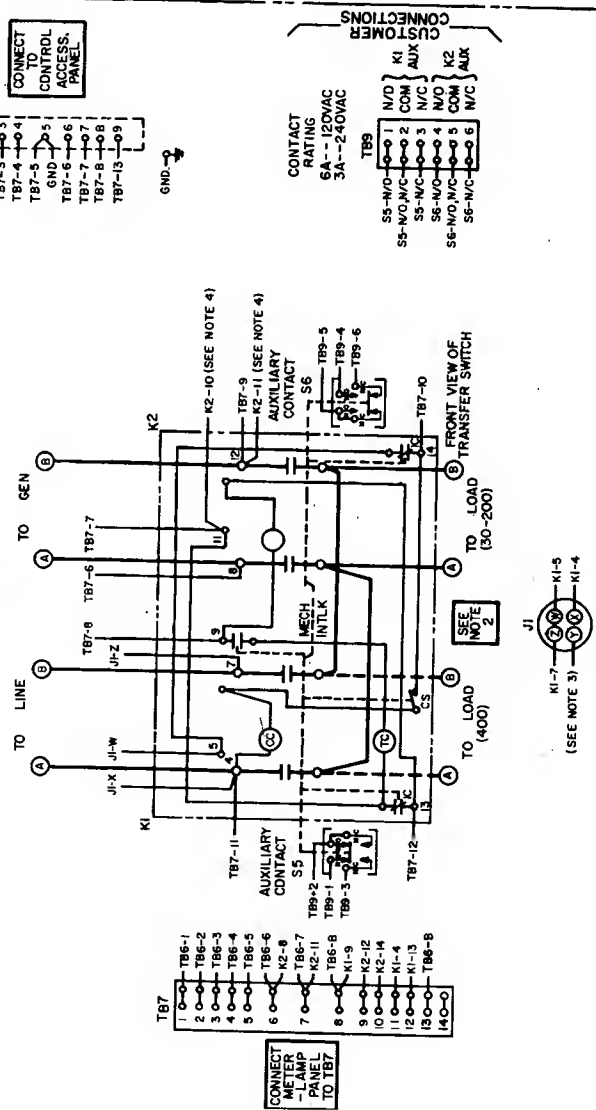
TRANSFER SWITCH-CABINET COMBINATION: C
TRANSFER SW MECHANICALLY HELD LINE SIDE
CABINET(LESS METER PANEL)
AUXILIARY CONTACTS LINE & GEN SIDE

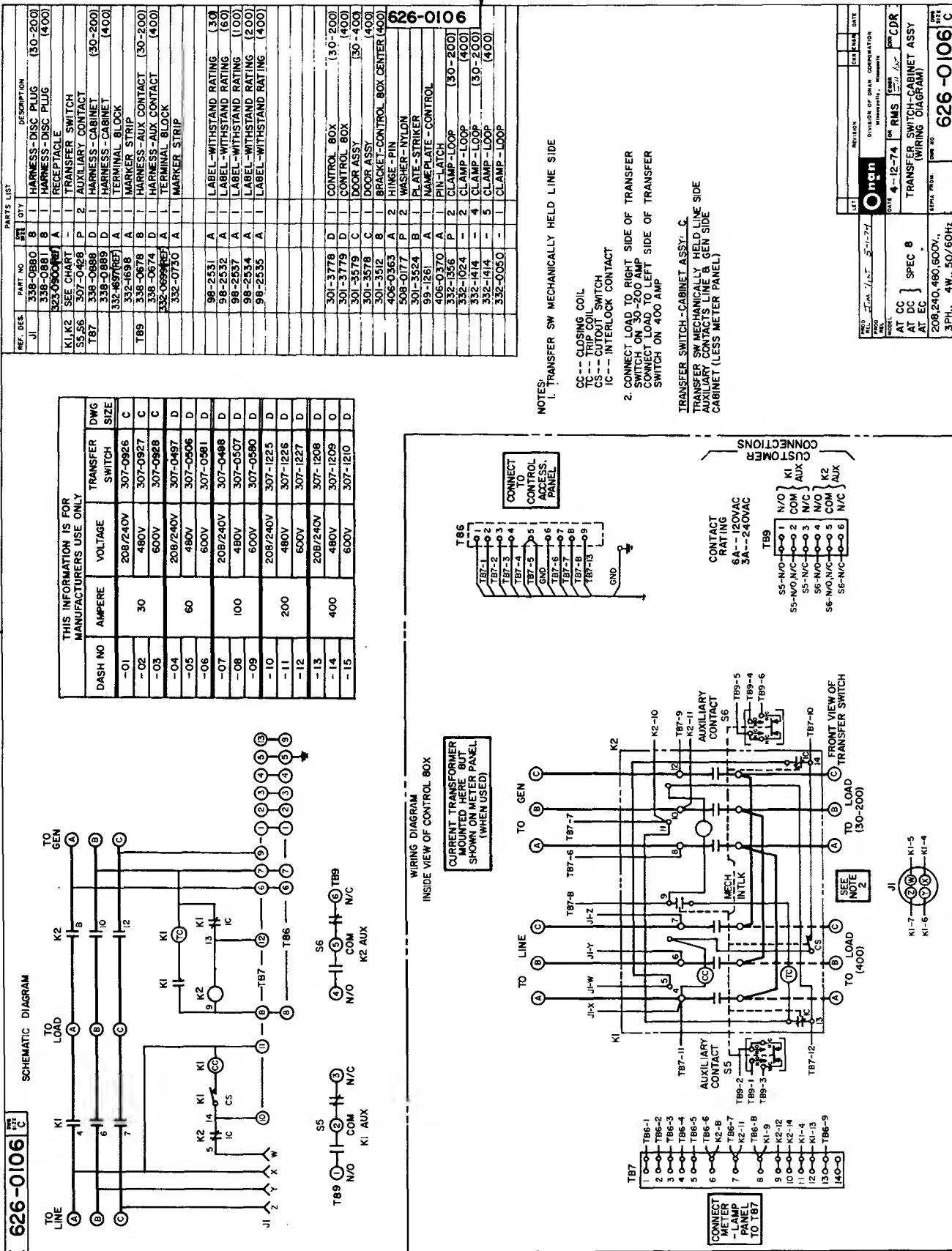
DATE	TIME	DATE	TIME
12-14-74	11:00 AM	12-14-74	11:00 AM
NAME	ROOM	NAME	ROOM
JOHN W. VINT	120/240V, 3PH	JOHN W. VINT	120/240V, 3PH
PROJECT	DESCRIPTION	PROJECT	DESCRIPTION
TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)	TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)
DATE	TIME	DATE	TIME
4-12-74	11:00 AM	4-12-74	11:00 AM
NAME	ROOM	NAME	ROOM
JOHN W. VINT	120/240V, 3PH	JOHN W. VINT	120/240V, 3PH
PROJECT	DESCRIPTION	PROJECT	DESCRIPTION
TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)	TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)
DATE	TIME	DATE	TIME
4-12-74	11:00 AM	4-12-74	11:00 AM
NAME	ROOM	NAME	ROOM
JOHN W. VINT	120/240V, 3PH	JOHN W. VINT	120/240V, 3PH
PROJECT	DESCRIPTION	PROJECT	DESCRIPTION
TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)	TRANSFORMER	TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)

SCHEMATIC DIAGRAM



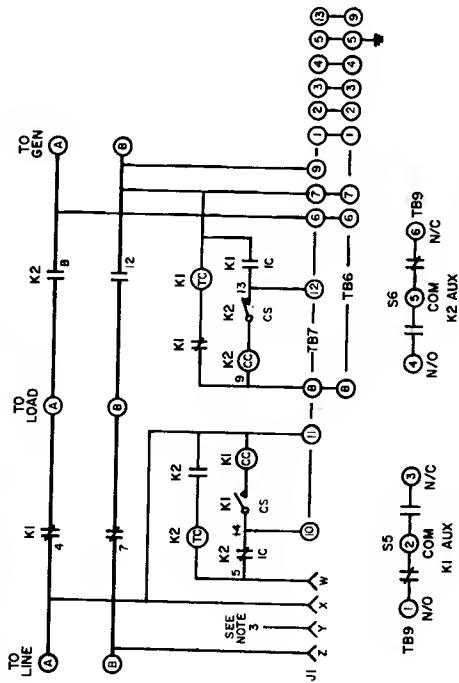
**CURRENT TRANSFORMER
MOUNTED HERE BUT
SHOWN ON METER PANEL
(WHEN USED)**





626-0107

SCHEMATIC DIAGRAM

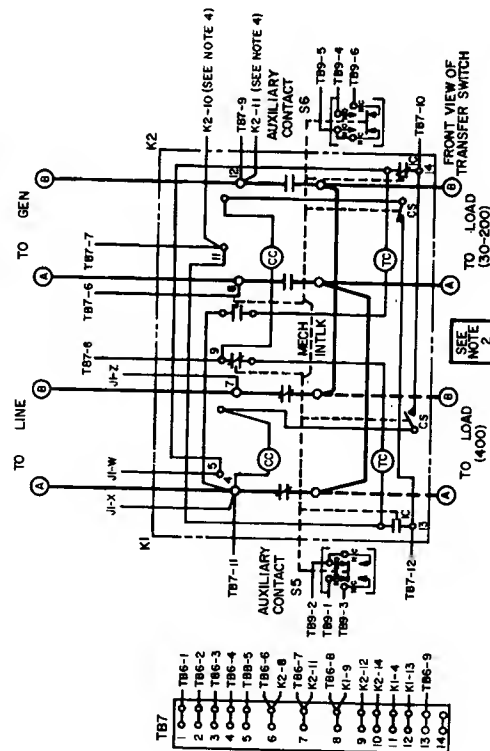


NOTES:

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE NORMAL LINE SHOWN DE-ENERGIZED
IC -- CLOSING COIL
CS -- CUTOFF SWITCH
IC -- INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP
CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP
3. WIRE INCLUDED IN HARNESS BUT NOT NEEDED FOR OPERATION. THE FREE END INTO HARNESS
4. THIS WIRE LABELED FROM K2-11, TO K2-10
CONNECT FROM K2-11, TO K2-12

WIRING DIAGRAM
INSIDE VIEW OF CONTROL BOX

CURRENT TRANSFORMER
MOUNTED HERE BUT
SHOWN ON METER PANEL
(WHEN USED)



CONNECT
WIRE
TO
LAMP
PANEL
TO TB7

1	0-0	TB6-1
2	0-0	TB6-2
3	0-0	TB6-3
4	0-0	TB6-4
5	0-0	TB6-5
6	0-0	TB6-6
7	0-0	TB6-7
8	0-0	TB6-8
9	0-0	TB6-9
10	0-0	TB6-10
11	0-0	TB6-11
12	0-0	TB6-12
13	0-0	TB6-13
14	0-0	TB6-14

1	0-0	TB7-1
2	0-0	TB7-2
3	0-0	TB7-3
4	0-0	TB7-4
5	0-0	TB7-5
6	0-0	TB7-6
7	0-0	TB7-7
8	0-0	TB7-8
9	0-0	TB7-9
10	0-0	TB7-10
11	0-0	TB7-11
12	0-0	TB7-12
13	0-0	TB7-13
14	0-0	TB7-14

CONNECT
WIRE
TO
CONTROL
ACCESS
PANEL

1	0-0	TB8-1
2	0-0	TB8-2
3	0-0	TB8-3
4	0-0	TB8-4
5	0-0	TB8-5
6	0-0	TB8-6
7	0-0	TB8-7
8	0-0	TB8-8
9	0-0	TB8-9
10	0-0	TB8-10
11	0-0	TB8-11
12	0-0	TB8-12
13	0-0	TB8-13
14	0-0	TB8-14

1	0-0	TB9-1
2	0-0	TB9-2
3	0-0	TB9-3
4	0-0	TB9-4
5	0-0	TB9-5
6	0-0	TB9-6
7	0-0	TB9-7
8	0-0	TB9-8
9	0-0	TB9-9
10	0-0	TB9-10
11	0-0	TB9-11
12	0-0	TB9-12
13	0-0	TB9-13
14	0-0	TB9-14

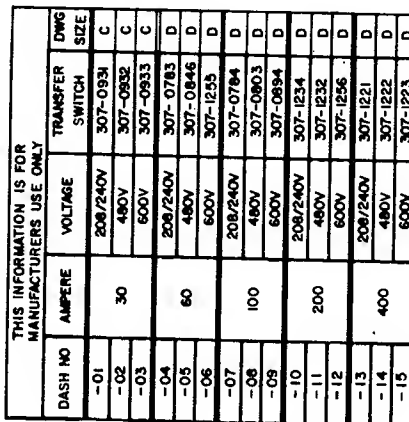


REF. DES.	PART NO.	QTY.	DESCRIPTION
J1	338-0880	1	HARNESS - DISC PLUG (30-200)
	338-0881	1	HARNESS - DISC PLUG (400)
K1, K2	323-0800	1	TRANSFER SWITCH
S5, S6	307-0428	2	AUXILIARY CONTACT (30-200)
TB7	338-0888	1	HARNESS - CABINET (400)
	338-0889	1	TERMINAL BLOCK
	332-657	1	MARKER STRIP
TB9	338-0678	1	HARNESS - AUX CONTACT (30-200)
	338-0679	1	TERMINAL BLOCK (400)
	332-0888	1	MARKER STRIP
	332-0730	1	MARKER STRIP
	9B-2531	1	LABEL - WITHSTAND RATING (30)
	9B-2532	1	LABEL - WITHSTAND RATING (60)
	9B-2533	1	LABEL - WITHSTAND RATING (100)
	9B-2534	1	LABEL - WITHSTAND RATING (200)
	9B-2535	1	LABEL - WITHSTAND RATING (400)
	301-3778	1	CONTROL BOX (30-200)
	301-3779	1	CONTROL BOX (400)
	301-3579	1	DOOR ASSY (30-400)
	301-3578	1	DOOR ASSY (400)
	301-3512	1	BRACKET-CONTROL BOX CENTER (400)
	406-0363	2	HINGE - PIN
	508-0177	2	WASHER - NYLON
	301-3524	1	PLATE - STRIKER
	99-1261	1	NAME PLATE - CONTROL
	406-0370	1	PIN - LATCH (30-200)
	332-1024	2	CLAMP - LOOP (400)
	332-1414	4	CLAMP - LOOP (30-200)
	332-1414	4	CLAMP - LOOP (400)
	332-0050	1	CLAMP - LOOP (400)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
DASH NO	AMPERE	TRANSFER SWITCH	DWG SIZE
-01	30	307-0830	C
-02	60	307-0779	D
-03	100	307-0780	D
-04	200	307-1233	D
-05	400	307-1220	D

TRANSFER SWITCH-CABINET COMBINATION: D
TRANSFER SW MECHANICALLY HELD BOTH SIDES
CABINET (LESS METER PANEL)
AUXILIARY CONTACTS LINE & GEN SIDE

DATE		REVISED	DATE
4-12-74		5-11-74	
AT CD		DIVISION OF OMA CORPORATION	
AT DD		TRANSFERRING	
AT ED		RMS	
240V, 2W, 120/240V, 3W		TRANSFER SWITCH-CABINET ASSY	
1PH, 3W, 50/60HZ		(WIRING DIAGRAM)	
626-0107		626-0107	



REF. DES.	PART NO.	PARTS LIST	DESCRIPTION	
J1	338-0880	A	HARNISS-DISC PLUS (30-200)	
	338-0881	B	HARNISS-DISC PLUS (400)	
	338-0900	A	RECEPTACLE	
K1,K2	SEE CHART			
30-56	307-0458	P	TRANSFER SWITCH	
T87	338-0868	D	AUXILIARY CONTACT	
	338-0869	D	HARNISS-CABINET (30-200)	
	338-0889	D	HARNISS-CABINET (400)	
	332-067267	A	TERMINAL BLOCK	
	302-1698	A	MARKER STRIP	
T89	338-0878	B	HARNISS-AUX CONTACT (30-200)	
	338-0878	B	HARNISS-AUX CONTACT (400)	
	332-089262	A	TERMINAL BLOCK	
	332-0730	A	MARKER STRIP	
	98-2531	A	LABEL - WITHSTAND RATING (30)	
	98-2532	A	LABEL - WITHSTAND RATING (60)	
	98-2537	A	LABEL - WITHSTAND RATING (100)	
	98-2534	A	LABEL - WITHSTAND RATING (200)	
	98-2535	A	LABEL - WITHSTAND RATING (400)	
	301-377B	D	CONTROL BOX (30-200)	
	301-377D	D	CONTROL BOX (400)	
	301-3579	C	DOOR ASSY	
	301-3578	C	DOOR ASSY (30-400)	
	301-3512	B	BRACKET-CONTROL BOX CENTER (400)	
	406-0363	A	HINGE-PIN	
	508-0177	P	WASHER-NYLON	
	301-3524	P	PLATE-STRIKER	
	98-1261	A	NAMEPLATE - CONTROL	
	406-0370	A	PIN-LATCH	
	332-1356	P	CLAMP-LOOP (30-200)	
	332-1024	P	CLAMP-LOOP (400)	
	332-1414	-	CLAMP-LOOP (30-200)	
	332-1414	-	CLAMP-LOOP (400)	
	332-0050	-	CLAMP-LOOP	

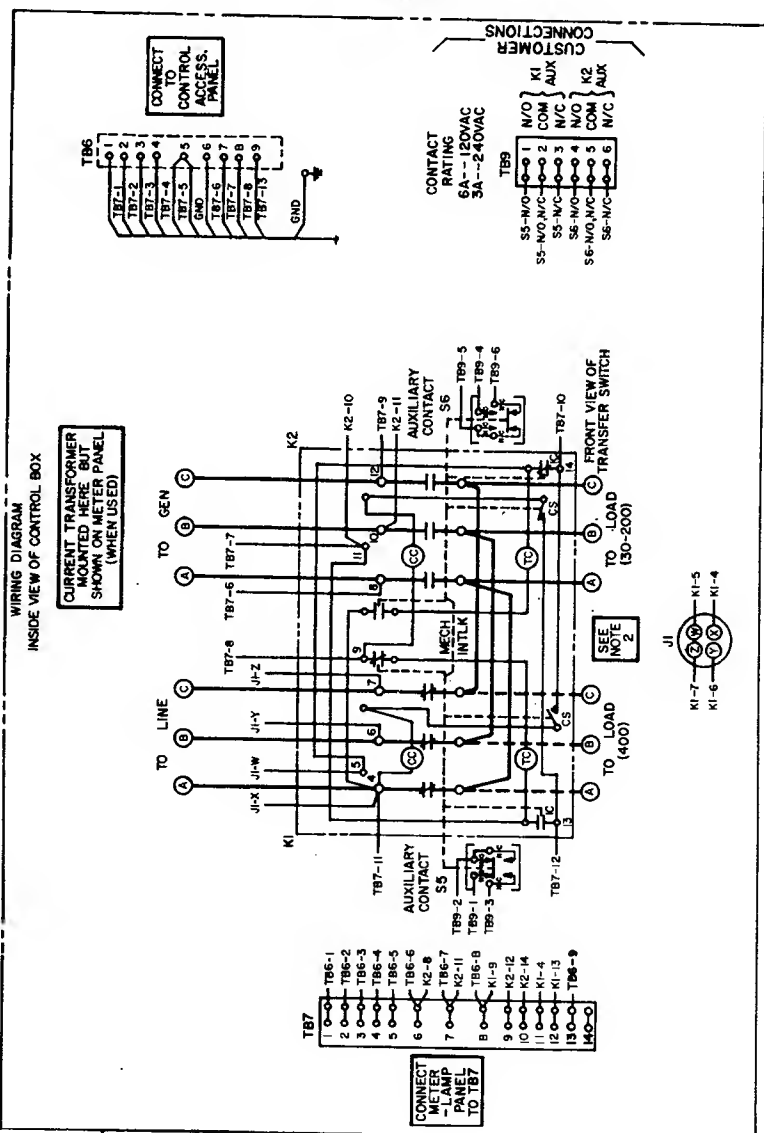
NOTES:

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE NORMAL LINE SHOWN DE-ENERGIZED
CS --- CLOSING COIL
TC --- TRIP COIL
IC --- CUTOFF SWITCH
IC --- INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP
CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP

TRANSFER SWITCH-CABINET ASSY. D
TRANSFER SW MECHANICALLY HELD BOTH SIDES
AUXILIARY CONTACTS LINE & GEN SIDE
CABINET (LESS METER PANEL)

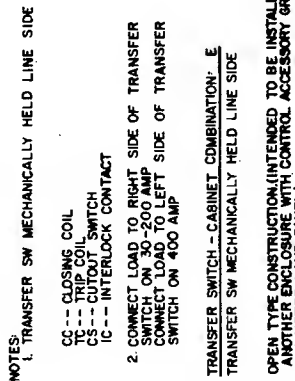
TRANSFER SWITCH-CABINET ASSY: D

**TRANSFER SW MECHANICALLY HELD BOTH SIDES
AUXILIARY CONTACTS LINE & GEN SIDE
CABINET (LESS METER PANEL)**



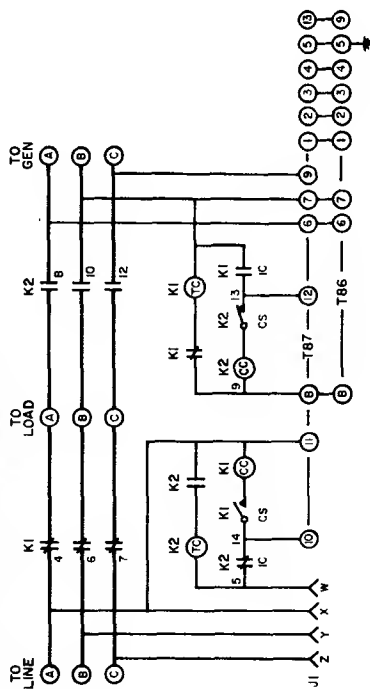
NO. 206 240	NO. 480 800V.	NO. 50 600H.	NO. 3PH.	NO. 4W.	NO. 50 600H.
AT CD	SPEC B	AT CD	AT DD	AT ED	
TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)					
DATE 4-12-74		TIME 1:00 PM	BY RNS	FOR CD	
DRAWN BY		CHECKED BY		APPROVED BY	
Ogon		DIVISION OF NAME CORPORATION		PROJECT NO.	
LIT		NETWORK		CIRCUIT NO.	
SHEET NO.		SHEET NO.		SHEET NO.	

The diagram shows a 3-phase 4-wire system. The three main lines are labeled A, B, and C. The neutral line is labeled N. The neutral line is connected to ground through a reactor (K1) and a capacitor (K2). The system is labeled 'TO LINE' and 'TO LOAD'.



626-0154

SCHEMATIC DIAGRAM



DASH NO	AMPERE	VOLTAGE	TRANSFER SWITCH	DWG SIZE
-01	30	208/240V	307-0931	C
-02	30	480V	307-0932	C
-03	30	600V	307-0933	C
-04	60	208/240V	307-0783	D
-05	60	480V	307-0846	D
-06	60	600V	307-1255	D
-07	100	208/240V	307-0784	D
-08	100	480V	307-0803	D
-09	100	600V	307-0894	D
-10	200	208/240V	307-1234	D
-11	200	480V	307-1232	D
-12	200	600V	307-1256	D
-13	400	208/240V	307-1221	D
-14	400	480V	307-1222	D
-15	400	600V	307-1223	D

REF. DES.	PART NO.	DESCRIPTION	QTY	UNIT
J1	338-0880	HARNESS-DISC PLUG	(30-200)	
K1	338-0881	HARNESS-DISC PLUG	(400)	
K2	338-0882	RECEPTACLE	(400)	
K3	338-0883	TRANSFER SWITCH	(30-200)	
K4	338-0884	HARNESS-CABINET	(30-200)	
K5	338-0885	HARNESS-CABINET	(400)	
K6	338-0886	TERMINAL BLOCK	(400)	
K7	338-0887	MARKER STRIP	(400)	
K8	338-0888	LABEL-WITHSTAND RATING	(30)	
K9	338-0889	LABEL-WITHSTAND RATING	(60)	
K10	338-0890	LABEL-WITHSTAND RATING	(100)	
K11	338-0891	LABEL-WITHSTAND RATING	(200)	
K12	338-0892	LABEL-WITHSTAND RATING	(400)	
K13	338-0893	LABEL-WITHSTAND RATING	(400)	
K14	338-0894	LABEL-WITHSTAND RATING	(400)	
K15	338-0895	LABEL-WITHSTAND RATING	(400)	
K16	338-0896	LABEL-WITHSTAND RATING	(400)	
K17	338-0897	LABEL-WITHSTAND RATING	(400)	
K18	338-0898	LABEL-WITHSTAND RATING	(400)	
K19	338-0899	LABEL-WITHSTAND RATING	(400)	
K20	338-0900	LABEL-WITHSTAND RATING	(400)	
K21	338-0901	LABEL-WITHSTAND RATING	(400)	
K22	338-0902	LABEL-WITHSTAND RATING	(400)	
K23	338-0903	LABEL-WITHSTAND RATING	(400)	
K24	338-0904	LABEL-WITHSTAND RATING	(400)	
K25	338-0905	LABEL-WITHSTAND RATING	(400)	
K26	338-0906	LABEL-WITHSTAND RATING	(400)	
K27	338-0907	LABEL-WITHSTAND RATING	(400)	
K28	338-0908	LABEL-WITHSTAND RATING	(400)	
K29	338-0909	LABEL-WITHSTAND RATING	(400)	
K30	338-0910	LABEL-WITHSTAND RATING	(400)	
K31	338-0911	LABEL-WITHSTAND RATING	(400)	
K32	338-0912	LABEL-WITHSTAND RATING	(400)	
K33	338-0913	LABEL-WITHSTAND RATING	(400)	
K34	338-0914	LABEL-WITHSTAND RATING	(400)	
K35	338-0915	LABEL-WITHSTAND RATING	(400)	
K36	338-0916	LABEL-WITHSTAND RATING	(400)	
K37	338-0917	LABEL-WITHSTAND RATING	(400)	
K38	338-0918	LABEL-WITHSTAND RATING	(400)	
K39	338-0919	LABEL-WITHSTAND RATING	(400)	
K40	338-0920	LABEL-WITHSTAND RATING	(400)	
K41	338-0921	LABEL-WITHSTAND RATING	(400)	
K42	338-0922	LABEL-WITHSTAND RATING	(400)	
K43	338-0923	LABEL-WITHSTAND RATING	(400)	
K44	338-0924	LABEL-WITHSTAND RATING	(400)	
K45	338-0925	LABEL-WITHSTAND RATING	(400)	
K46	338-0926	LABEL-WITHSTAND RATING	(400)	
K47	338-0927	LABEL-WITHSTAND RATING	(400)	
K48	338-0928	LABEL-WITHSTAND RATING	(400)	
K49	338-0929	LABEL-WITHSTAND RATING	(400)	
K50	338-0930	LABEL-WITHSTAND RATING	(400)	
K51	338-0931	LABEL-WITHSTAND RATING	(400)	
K52	338-0932	LABEL-WITHSTAND RATING	(400)	
K53	338-0933	LABEL-WITHSTAND RATING	(400)	
K54	338-0934	LABEL-WITHSTAND RATING	(400)	
K55	338-0935	LABEL-WITHSTAND RATING	(400)	
K56	338-0936	LABEL-WITHSTAND RATING	(400)	
K57	338-0937	LABEL-WITHSTAND RATING	(400)	
K58	338-0938	LABEL-WITHSTAND RATING	(400)	
K59	338-0939	LABEL-WITHSTAND RATING	(400)	
K60	338-0940	LABEL-WITHSTAND RATING	(400)	
K61	338-0941	LABEL-WITHSTAND RATING	(400)	
K62	338-0942	LABEL-WITHSTAND RATING	(400)	
K63	338-0943	LABEL-WITHSTAND RATING	(400)	
K64	338-0944	LABEL-WITHSTAND RATING	(400)	
K65	338-0945	LABEL-WITHSTAND RATING	(400)	
K66	338-0946	LABEL-WITHSTAND RATING	(400)	
K67	338-0947	LABEL-WITHSTAND RATING	(400)	
K68	338-0948	LABEL-WITHSTAND RATING	(400)	
K69	338-0949	LABEL-WITHSTAND RATING	(400)	
K70	338-0950	LABEL-WITHSTAND RATING	(400)	
K71	338-0951	LABEL-WITHSTAND RATING	(400)	
K72	338-0952	LABEL-WITHSTAND RATING	(400)	
K73	338-0953	LABEL-WITHSTAND RATING	(400)	
K74	338-0954	LABEL-WITHSTAND RATING	(400)	
K75	338-0955	LABEL-WITHSTAND RATING	(400)	
K76	338-0956	LABEL-WITHSTAND RATING	(400)	
K77	338-0957	LABEL-WITHSTAND RATING	(400)	
K78	338-0958	LABEL-WITHSTAND RATING	(400)	
K79	338-0959	LABEL-WITHSTAND RATING	(400)	
K80	338-0960	LABEL-WITHSTAND RATING	(400)	
K81	338-0961	LABEL-WITHSTAND RATING	(400)	
K82	338-0962	LABEL-WITHSTAND RATING	(400)	
K83	338-0963	LABEL-WITHSTAND RATING	(400)	
K84	338-0964	LABEL-WITHSTAND RATING	(400)	
K85	338-0965	LABEL-WITHSTAND RATING	(400)	
K86	338-0966	LABEL-WITHSTAND RATING	(400)	
K87	338-0967	LABEL-WITHSTAND RATING	(400)	
K88	338-0968	LABEL-WITHSTAND RATING	(400)	
K89	338-0969	LABEL-WITHSTAND RATING	(400)	
K90	338-0970	LABEL-WITHSTAND RATING	(400)	
K91	338-0971	LABEL-WITHSTAND RATING	(400)	
K92	338-0972	LABEL-WITHSTAND RATING	(400)	
K93	338-0973	LABEL-WITHSTAND RATING	(400)	
K94	338-0974	LABEL-WITHSTAND RATING	(400)	
K95	338-0975	LABEL-WITHSTAND RATING	(400)	
K96	338-0976	LABEL-WITHSTAND RATING	(400)	
K97	338-0977	LABEL-WITHSTAND RATING	(400)	
K98	338-0978	LABEL-WITHSTAND RATING	(400)	
K99	338-0979	LABEL-WITHSTAND RATING	(400)	
K100	338-0980	LABEL-WITHSTAND RATING	(400)	

626-0154

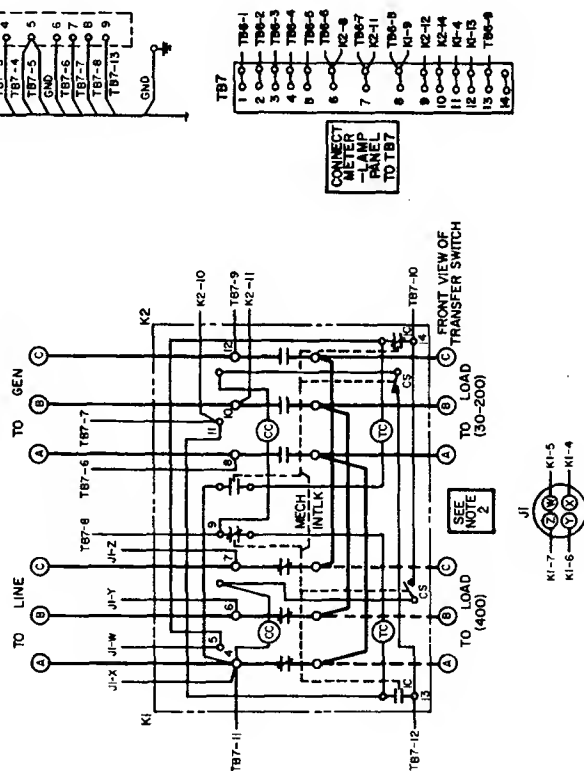
- NOTES:
- TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE POSITION. TRANSFER SW MECHANICALLY DE-ENERGIZED BY TRIP COIL.
 - CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP TRANSFER SWITCH ON 400 AMP.

TRANSFER SWITCH-CABINET COMBINATION: F.
TRANSFER SW MECHANICALLY HELD BOTH SIDES
OPEN TYPE CONSTRUCTION (INTENDED TO BE INSTALLED INTO ANOTHER ENCLOSURE WITH CONTROL ACCESSORY GROUP AND METER LAMP PANEL)

REV. DES.	DATE	BY	CHKD.	DATE
1	5-28-74	W. G. C.		
DIVISION OF OMA CORPORATION				
PROJECT: TRANSFER SW-CABINET				
SPEC: B				
WIRING DIAGRAM				
626-0154				

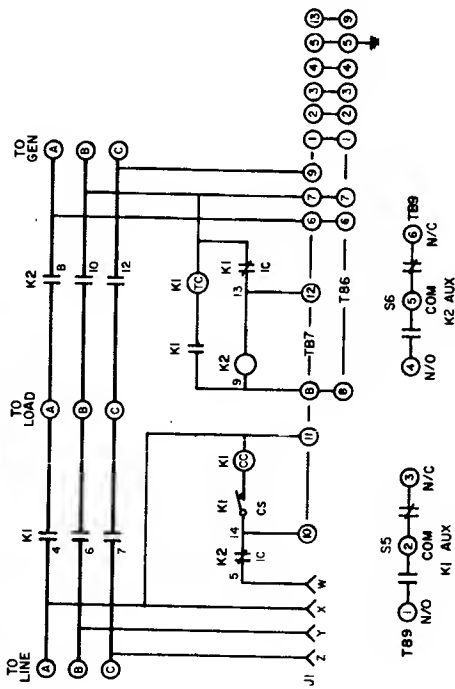
WIRING DIAGRAM
INSIDE VIEW OF CONTROL BOX

CURRENT TRANSFORMER
MOUNTED HERE BUT
SHOWN ON METER PANEL
(WHEN USED)



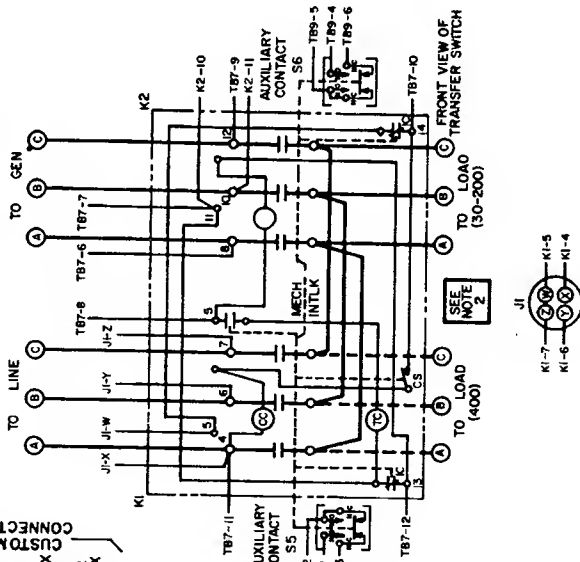
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SCHEMATIC DIAGRAM

WIRING DIAGRAM
INSIDE VIEW OF CONTROL BOXCURRENT TRANSFORMER
MOUNTED HERE BUT
SHOWN ON METER PANEL
(WHEN USED)

CONTACT
RATING
6A--120VAC
3A--240VAC

TERMINALS
K1 N/O
K2 COM
K3 N/C
K4 N/O
K5 COM
K6 N/C
K7 N/O
K8 COM
K9 N/C
K10 N/O
K11 COM
K12 N/C
K13 N/O
K14 COM
K15 N/C
K16 N/O
K17 COM
K18 N/C
K19 N/O
K20 COM
K21 N/C
K22 N/O
K23 COM
K24 N/C
K25 N/O
K26 COM
K27 N/C
K28 N/O
K29 COM
K30 N/C
K31 N/O
K32 COM
K33 N/C
K34 N/O
K35 COM
K36 N/C
K37 N/O
K38 COM
K39 N/C
K40 N/O
K41 COM
K42 N/C
K43 N/O
K44 COM
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K46 N/O
K47 COM
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K50 COM
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K56 COM
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K61 N/O
K62 COM
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K64 N/O
K65 COM
K66 N/C
K67 N/O
K68 COM
K69 N/C
K70 N/O
K71 COM
K72 N/C
K73 N/O
K74 COM
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K76 N/O
K77 COM
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K79 N/O
K80 COM
K81 N/C
K82 N/O
K83 COM
K84 N/C
K85 N/O
K86 COM
K87 N/C
K88 N/O
K89 COM
K90 N/C
K91 N/O
K92 COM
K93 N/C
K94 N/O
K95 COM
K96 N/C
K97 N/O
K98 COM
K99 N/C
K100 N/O



OASH NO	AMPERE	VOLTAGE	TRANSFER SWITCH	DWG
-01	208/240V	307-0926	C	
-02	30	480V	307-0927	C
-03	600V	307-0928	C	
-04	208/240V	307-0497	D	
-05	480V	307-0506	D	
-06	600V	307-0581	D	
-07	208/240V	307-0488	D	
-08	480V	307-0507	D	
-09	600V	307-0580	D	
-10	208/240V	307-1225	D	
-11	480V	307-1226	D	
-12	600V	307-1227	D	
-13	208/240V	307-1208	D	
-14	480V	307-1209	D	
-15	600V	307-1210	D	

REF. DES.	PART NO.	QTY.	DESCRIPTION	QTY.
J1	338-0880	8	HARNES-DISC PLUG (30-200)	(400)
	338-0881	8	HARNES-DISC PLUG (30-200)	(400)
	338-0882	8	RECEPTACLE	
K1, K2	SEE CHART	-	TRANSFER SWITCH	
S5, S6	307-0428	P	AUXILIARY CONTACT (30-200)	
T87	338-0888	D	HARNES-CABINET	(30-200)
	338-0889	D	HARNES-CABINET	(30-200)
	332-487(REF)	A	TERMINAL BLOCK	(400)
	332-1698	A	MARKER STRIP	
T89	338-0678	B	HARNES-AUX CONTACT (30-200)	
	338-0674	D	HARNES-AUX CONTACT (400)	
	332-0689(REF)	A	TERMINAL BLOCK	(400)
	332-0730	A	MARKER STRIP	
	98-2531	A	LABEL-WITHSTAND RATING (30)	
	98-2532	A	LABEL-WITHSTAND RATING (80)	
	98-2537	A	LABEL-WITHSTAND RATING (100)	
	98-2534	A	LABEL-WITHSTAND RATING (200)	
	98-2535	A	LABEL-WITHSTAND RATING (400)	
	301-3784	D	PANEL-ATS MOUNTING	
	301-3783	D	HOUSING-SWIRLING PANEL	
	308-0116	-	GROMMET	
	301-3785	A	BRACKET-METER PANEL	
	408-0363	A	HINGE-PIN	
	508-0177	P	WASHER-NYLON	
	508-0084	P	GROMMET	
	95-1261	A	NAME PLATE-CONTROL	
	406-0370	A	PIN-LATCH	
	332-1556	P	CLAMP-LOOP (30-200)	
	332-1024	-	CLAMP-LOOP (400)	
	332-1414	-	CLAMP-LOOP (30-200)	
	332-1414	-	CLAMP-LOOP (400)	
	332-0050	-	CLAMP-LOOP	

NOTES:
1. TRANSFER SW MECHANICALLY HELD LINE SIDE

CC--CLOSING COIL
TC--TRIP COIL
CS--CUTOUT SWITCH
IC--INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER
SWITCH ON 200 AMP SIDE OF TRANSFER
CONNECT LOAD TO LEFT SIDE OF TRANSFER
SWITCH ON 400 AMP

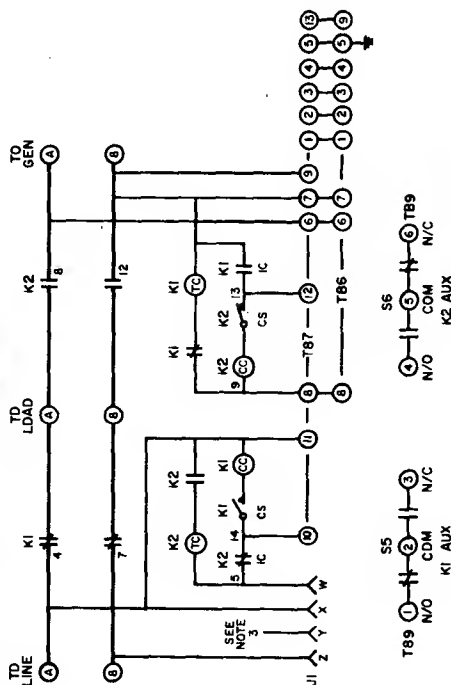
TRANSFER SWITCH-CABINET ASSY. B
TRANSFER SW MECHANICALLY HELD LINE SIDE
AUXILIARY CONTACTS LINE & GEN SIDE
OPEN TYPE CONSTRUCTION INTENDED TO BE INSTALLED INTO
ANOTHER ENCLOSURE WITH CONTROL ACCESSORY GROUP
AND METER LAMP PANEL

REV. 1	DATE	BY	CHKD
REV. 2	DATE	BY	CHKD
REV. 3	DATE	BY	CHKD
REV. 4	DATE	BY	CHKD
REV. 5	DATE	BY	CHKD
REV. 6	DATE	BY	CHKD
REV. 7	DATE	BY	CHKD
REV. 8	DATE	BY	CHKD
REV. 9	DATE	BY	CHKD
REV. 10	DATE	BY	CHKD
REV. 11	DATE	BY	CHKD
REV. 12	DATE	BY	CHKD
REV. 13	DATE	BY	CHKD
REV. 14	DATE	BY	CHKD
REV. 15	DATE	BY	CHKD
REV. 16	DATE	BY	CHKD
REV. 17	DATE	BY	CHKD
REV. 18	DATE	BY	CHKD
REV. 19	DATE	BY	CHKD
REV. 20	DATE	BY	CHKD
REV. 21	DATE	BY	CHKD
REV. 22	DATE	BY	CHKD
REV. 23	DATE	BY	CHKD
REV. 24	DATE	BY	CHKD
REV. 25	DATE	BY	CHKD
REV. 26	DATE	BY	CHKD
REV. 27	DATE	BY	CHKD
REV. 28	DATE	BY	CHKD
REV. 29	DATE	BY	CHKD
REV. 30	DATE	BY	CHKD
REV. 31	DATE	BY	CHKD
REV. 32	DATE	BY	CHKD
REV. 33	DATE	BY	CHKD
REV. 34	DATE	BY	CHKD
REV. 35	DATE	BY	CHKD
REV. 36	DATE	BY	CHKD
REV. 37	DATE	BY	CHKD
REV. 38	DATE	BY	CHKD
REV. 39	DATE	BY	CHKD
REV. 40	DATE	BY	CHKD
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REV. 45	DATE	BY	CHKD
REV. 46	DATE	BY	CHKD
REV. 47	DATE	BY	CHKD
REV. 48	DATE	BY	CHKD
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REV. 70	DATE	BY	CHKD
REV. 71	DATE	BY	CHKD
REV. 72	DATE	BY	CHKD
REV. 73	DATE	BY	CHKD
REV. 74	DATE	BY	CHKD
REV. 75	DATE	BY	CHKD
REV. 76	DATE	BY	CHKD
REV. 77	DATE	BY	CHKD
REV. 78	DATE	BY	CHKD
REV. 79	DATE	BY	CHKD
REV. 80	DATE	BY	CHKD
REV. 81	DATE	BY	CHKD
REV. 82	DATE	BY	CHKD
REV. 83	DATE	BY	CHKD
REV. 84	DATE	BY	CHKD
REV. 85	DATE	BY	CHKD
REV. 86	DATE	BY	CHKD
REV. 87	DATE	BY	CHKD
REV. 88	DATE	BY	CHKD
REV. 89	DATE	BY	CHKD
REV. 90	DATE	BY	CHKD
REV. 91	DATE	BY	CHKD
REV. 92	DATE	BY	CHKD
REV. 93	DATE	BY	CHKD
REV. 94	DATE	BY	CHKD
REV. 95	DATE	BY	CHKD
REV. 96	DATE	BY	CHKD
REV. 97	DATE	BY	CHKD
REV. 98	DATE	BY	CHKD
REV. 99	DATE	BY	CHKD
REV. 100	DATE	BY	CHKD

626-0156

626-0157

SCHEMATIC DIAGRAM



- NOTES:
- TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE NORMAL LINE SHOWN DE-ENERGIZED CC -- CLOSING COIL TC -- TRIP COIL IC -- INTERLOCK SWITCH
 - CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 240V, 3W, 50/60HZ. CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP
 - WIRE INCLUDED IN HARNESS, BUT NOT NEEDED FOR OPERATION. THE FREE END INTO HARNESS
 - THIS WIRE LABELED FROM K2-II, TO K2-10

REF. DES.	PART NO.	QTY.	DESCRIPTION
J1	338-0880	1	HARNESS-DISC PLUG (30-200)
	338-0881	1	HARNESS-DISC PLUG (400)
K1, K2	323-0800	1	RECEPTACLE
	307-0428	2	TRANSFER SWITCH
T87	338-0888	1	AUXILIARY CONTACT
	338-0889	1	HARNESS-CABINET (30-200)
	332-1698	1	HARNESS-CABINET (400)
	332-1698	1	MARKER STRIP
T89	338-0678	1	TERMINAL BLOCK (30-200)
	338-0674	1	TERMINAL BLOCK (400)
	332-0899	1	TERMINAL BLOCK (400)
	332-0730	1	MARKER STRIP
	98-2531	1	LABEL-WITHSTAND RATING (30)
	98-2532	1	LABEL-WITHSTAND RATING (60)
	98-2533	1	LABEL-WITHSTAND RATING (100)
	98-2534	1	LABEL-WITHSTAND RATING (200)
	98-2535	1	LABEL-WITHSTAND RATING (400)
	301-3784	1	PANEL-ATS MOUNTING
	301-3783	1	HOUSING-SWITCHING PANEL
	308-0116	2	GROMMET
	301-3783	2	BRACKET-METER PANEL
	406-0363	1	HINGE-PIN
	508-01	1	WASHER-NYLON
	508-0084	1	GROMMET
	99-1261	1	NAMEPLATE-CONTROL
	406-0370	1	PIN-LATCH (30-200)
	332-1356	2	CLAMP-LOOP (400)
	332-1024	2	CLAMP-LOOP (400)
	332-1414	4	CLAMP-LOOP (400)
	332-1414	6	CLAMP-LOOP (400)
	332-0050	1	CLAMP-LOOP (400)

626-0157

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

DASH NO.	AMPERE	TRANSFER SWITCH	DWG SIZE
-01	30	307-0930	C
-02	60	307-0779	D
-03	100	307-0780	D
-04	200	307-1233	D
-05	400	307-1220	D

TRANSFER SWITCH-CABINET COMBINATION-H

TRANSFER SW MECHANICALLY HELD BOTH SIDES

AUXILIARY CONTACTS LINE & GEN SIDE

OPEN TYPE CONSTRUCTION INTENDED TO BE INSTALLED INTO ANOTHER ENCLOSURE WITH CONTROL ACCESSORY GROUP AND METER LAMP PANEL

WIRING DIAGRAM

INSIDE VIEW OF CONTROL BOX

CURRENT TRANSFORMER MOUNTED HERE BUT SHOWN ON METER PANEL (WHEN USED)

CONTACT RATING
6A--120VAC
3A--240VAC

T89
S5-N/O 1
S5-N/O 2
S5-N/O 3
S5-N/O 4
S5-N/O 5
S5-N/O 6
S5-N/O 7
S5-N/O 8
S5-N/O 9
S5-N/O 10
S5-N/O 11
S5-N/O 12
S5-N/O 13
S5-N/O 14
S5-N/O 15
S5-N/O 16
S5-N/O 17
S5-N/O 18
S5-N/O 19
S5-N/O 20
S5-N/O 21
S5-N/O 22
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S5-N/O 91
S5-N/O 92
S5-N/O 93
S5-N/O 94
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S5-N/O 97
S5-N/O 98
S5-N/O 99
S5-N/O 100

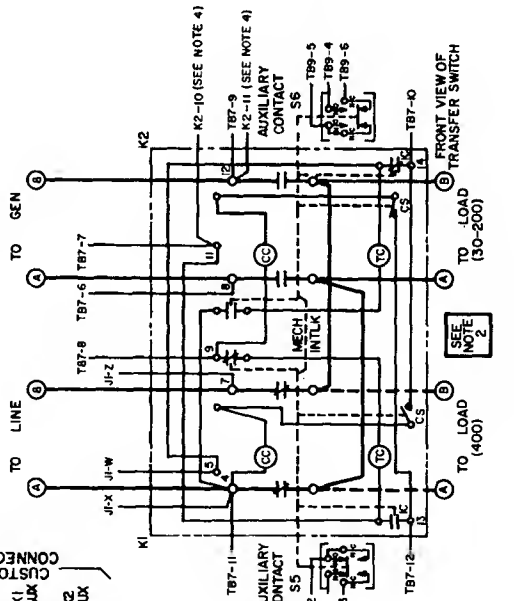
CONNECT CONTROL ACCESS. PANEL

T86
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GND

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CONNECT METER LAMP PANEL TO T87

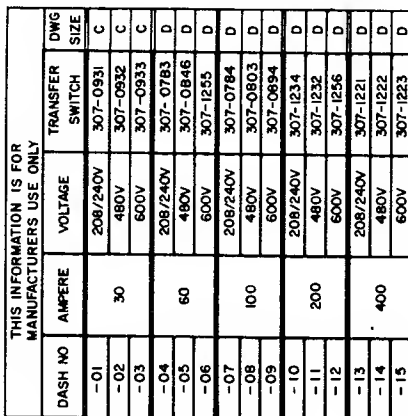


SEE NOTE 2

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K1-99
K1-100

(SEE NOTE 3)

REVISED	DATE	BY	CHKD
1	5-29-74	WJC	WJC
ORIGINAL			
TRANSFER SWITCH-CABINET ASSY (WIRING DIAGRAM)			
626-0157			



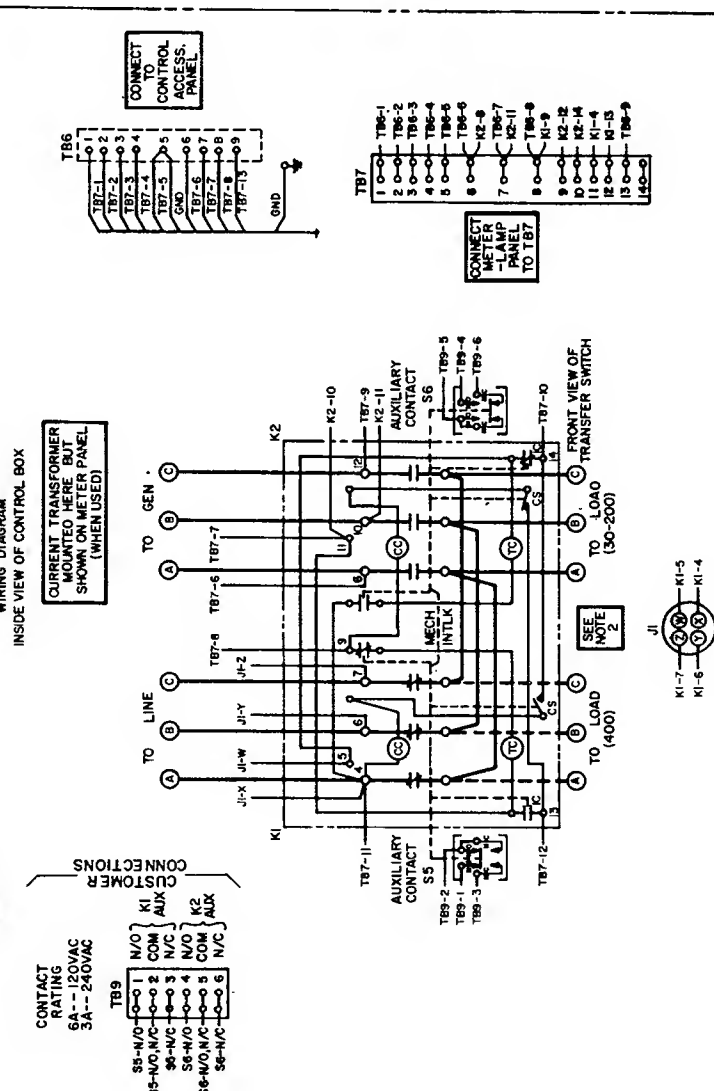
REF DES	PART NO	QTY	DESCRIPTION
J1	338-0880 A	1	HARNES DISC PLUG (30-200)
	338-0881 B	1	HARNES DISC PLUG (400)
	332-09000689 A	1	RECEPTACLE
K1 K2	SEE CHART		1 TRANSFER SWITCH
S3 S6	307-0428 B	2	AUXILIARY CONTACT
T67	338-0988 D	1	HARNES CABINET (30-200)
	339-0989 D	1	HARNES CABINET (400)
	332-1687(687) C	1	TERMINAL BLOCK
	332-1688 A	1	MARKER STRIP
T89	338-0878 B	2	HARNES AUX CONTACT (30-200)
	338-0874 D	1	HARNES AUX CONTACT (400)
	332-0896(896) C	1	TERMINAL BLOCK
	332-0730 A	1	MARKER STRIP
	98-2531 A	1	LABEL - WITHSTAND RATING (30)
	98-2532 A	1	LABEL - WITHSTAND RATING (60)
	98-2533 A	1	LABEL - WITHSTAND RATING (100)
	98-2534 A	1	LABEL - WITHSTAND RATING (200)
	98-2535 A	1	LABEL - WITHSTAND RATING (400)
	301-3764 D	1	PANEL - ATS MOUNTING
	301-3763 D	1	HOUSING - SWINGING PANEL
	508-0116 -	2	GROUND T
	301-3765 A	2	BRACKET - METER PANEL
	406-0363 A	2	HINGE - PIN
	508-0177 P	1	WASHER - NYLON
	508-0174 P	1	GASKET - METAL
	99-1261 A	1	NAMEPLATE - CONTROL
	406-0370 A	1	PIN - LAMP LOOP
	332-1356 P	2	CLAMP - LOOP (30-200)
	332-1024 A	2	CLAMP - LOOP (400)
	332-1414 -	4	CLAMP - LOOP (30-200)
	332-1414 -	6	CLAMP - LOOP (400)
	332-0930 -	1	CLAMP - LOOP

626-0158

NOTES:

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE. NORMAL LINE SHOWN DE-ENERGIZED.
CC --- CLOSING COIL
TC --- TRIP COIL
CS --- CUTOFF SWITCH
10 --- INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP.
CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP.

TRANSFER SWITCH-CABINET ASSY. H.
TRANSFER SW MECHANICALLY HELD BOTH SIDES
AUXILIARY CONTACTS LINE & GEN SIDE
OPEN TYPE CONSTRUCTION (INTENDED TO BE INSTALLED INTO
ANOTHER ENCLOSURE WITH CONTROL ACCESSORY GROUP
AND METER LAMP PANEL)



UNIT	DATE	TIME	DATE	TIME
101				
UNIT		DIVISION OF NAVAL COMBAT FORCE		
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15-29-74		1600		
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101		101		
DATE		TIME		
15-29-74		1600		
UNIT		FROM		
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15-29-74		1600		
UNIT		FROM		
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15-29-74		1600		
UNIT</				



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30-400)	(400)
30-400)	(400)
30-400)	(400)

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002

400)

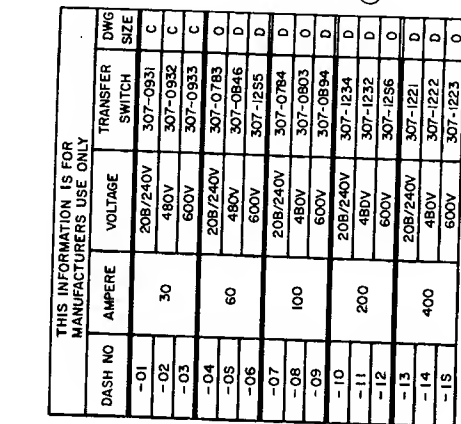
[illegible]

318

11-6-73	10-11-73	DATE
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20

02c



REF. DES.	PART NO.	PARTS LIST	QTY.	DESCRIPTION
J1	338-0660	B	1	HARNES - DISC PLUG (30-200)
	338-0069	B	1	HARNES - DISC PLUG (400)
	323-009REF	P	1	RECEPTACLE
K1,K2	SEE CHART			TRANSFER SWITCH
TB7	338-0856	D	1	HARNES - CABINET (30-200)
	338-0869	D	1	HARNES - CABINET (400)
	332-1469REF	A	1	TERMINAL BLOCK
	332-1469	A	1	MARKER STRIP
	98-2531	A	1	LABEL - WITHSTAND RATING (300)
	98-2532	A	1	LABEL - WITHSTAND RATING (600)
	98-2533	A	1	LABEL - WITHSTAND RATING (1000)
	98-2534	A	1	LABEL - WITHSTAND RATING (2000)
	98-2535	A	1	LABEL - WITHSTAND RATING (4000)
	301-3520	O	1	CONTROL BOX (30-200)
	301-3521	O	1	CONTROL BOX (400)
	301-3579	C	1	DOOR ASSY (30-400)
	301-3578	C	1	DOOR ASSY (400)
	301-3512	B	1	BRACKET-CONTROL BOX CENTER (400)
	406-0363	A	2	HINGE - PIN
	508-0177	P	1	WASHER - NYLON
	301-3524	B	1	PLATE - STRIPER
	99-1261	A	1	NAMEPLATE - CONTROL
	406-0370	A	1	PIN - LATCH (30-200)
	332-1356	P	2	CLAMP - LOOP (400)
	332-1024	A	1	CLAMP - LOOP (30-200)
	332-1414	A	6	CLAMP - LOOP (400)
	332-1414	A	1	CLAMP - LOOP (400)
	332-0050	I	1	CLAMP - LOOP (400)

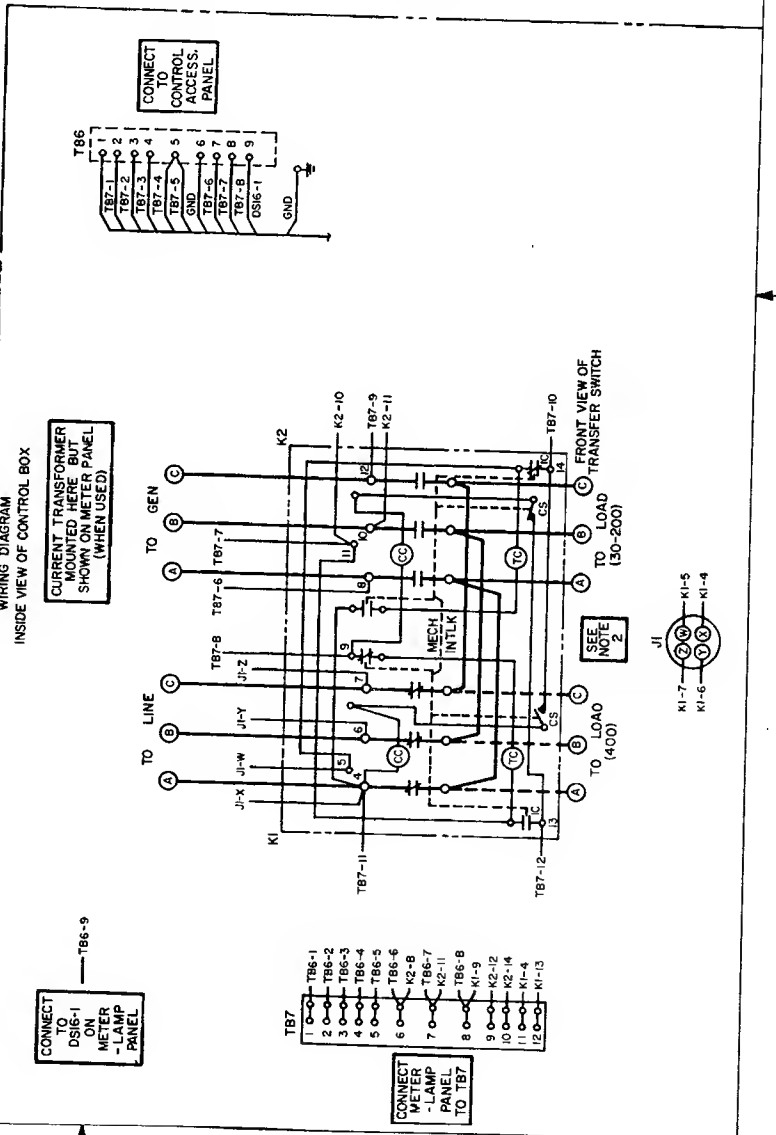
NOTES

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHUT DOWN INTO NORMAL LINE NORMAL SHUT DOWN DE-ENERGIZED CC --- CLOSING COIL TC --- TRIP COIL IC --- CUTOFF SWITCH CS --- INTERLOCK CONTACT

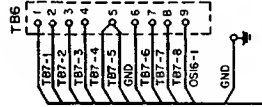
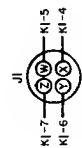
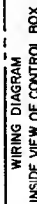
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 300-200 AMP CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP

TRANSFER SWITCH - CABINET COMBINATION - B

TRANSFER SW MECHANICALLY HELD BOTH SIDES CABINET (LESS METER PANEL)



SCHEMATIC DIAGRAM



NOTES:

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE
NORMAL LINE SHOWN DE-ENERGIZED
CC --- CLOSING COIL
TC --- TRIP COIL
IS --- INTERLOCK SWITCH
IC --- INTERLOCK CONTACT
2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP
CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP

TRANSFER SWITCH-CABINET ASSY: D
TRANSFER SW MECHANICALLY HELD BOTH SIDES
AUXILIARY CONTACTS LINE & GEN SIDE
CABINET (1 LESS METER PANEL)

REQ DES	PART NO	QTY	PARTS LIST	DESCRIPTION	
J1	301-0660	B	1	WARNER-DISC PLUG	(30-200)
	338-0659	B	1	WARNER-DISC PLUG	(400)
	331-0098P	P	1	RECEPTACLE	
	SEE CHART	P	2	TRANSFER SWITCH	
K1K2	307-00628	P	2	AUXILIARY CONTACT	(30-200)
	T87	D	1	WARNER-CABINET	(30-200)
	338-0656	D	1	WARNER-CABINET	(400)
	332-1468REF	A	1	TERMINAL BLOCK	
T89	332-1469	A	1	MARKER STRIP	
	338-0878	B	1	WARNER-AUX CONTACT	(30-200)
	338-0874	D	1	WARNER-AUX CONTACT	(400)
	332-0699REF	A	1	TERMINAL BLOCK	
	332-0730	A	1	MARKER STRIP	
	98-2531	A	1	LABEL - WITHSTAND RATING	(30)
	98-2532	A	1	LABEL - WITHSTAND RATING	(60)
	98-2537	A	1	LABEL - WITHSTAND RATING	(100)
	98-2534	A	1	LABEL - WITHSTAND RATING	(200)
	98-2535	A	1	LABEL - WITHSTAND RATING	(400)
	301-3520	D	1	CONTROL BOX	(30-200)
	301-3521	D	1	CONTROL BOX	(400)
	301-3579	C	1	DOOR ASSY	(30-400)
	301-3578	C	1	DOOR ASSY	(400)
	301-3312	B	1	BRACKET-CONTROL BOX CENTER	(400)
	406-0363	A	2	HINGE - PIN	
	50B-0177	P	2	WASHER-NYLON	
	301-3524	P	1	PLATE - STRIKER	
	99-1261	A	1	NAMEPLATE - CONTROL	
	406-0370	A	1	PIN-LATCH	(30-200)
	332-1356	P	2	CLAMP-LOOP	(400)
	333-1024	-	2	CLAMP-LOOP	(400)
	332-1414	-	4	CLAMP-LOOP	(30-200)
	332-1414	-	6	CLAMP-LOOP	(400)
	332-0050	-	1	CLAMP-LOOP	

©

NOTES:

1. TRANSFER SW MECHANICALLY HELD BOTH SIDES SHOWN LOCKED INTO NORMAL LINE
NORMAL LINE SHOWN DE-ENERGIZED
CLOSING COIL

CS -- CUTOUT SWITCH

IC -- INTERLOCK CONTACT

2. CONNECT LOAD TO RIGHT SIDE OF TRANSFER SWITCH ON 30-200 AMP

CONNECT LOAD TO LEFT SIDE OF TRANSFER SWITCH ON 400 AMP

TRANSFER SWITCH-CABINET ASSY: D
TRANSFER SW MECHANICALLY HELD BOTH SIDES
AUXILIARY CONTACTS LINE & GEN SIDE
CABINET (1 LESS METER PANEL)

C REMOVED 38-2541	11-16-75	10473	10473	DATE
B -OB WAS 307-B04				
A REMOVED 5 FROM MODEL NO				
REVISION				
LET				
DIVISION OF GREAT CORPORATION				
MANUFACTURING DIVISION				
Ongin				
DATE	2-1-73	FOR JTM	DATE	FOR
TRANSFER SWITCH-CABINET ASSY				
(WIRING DIAGRAM)				
SERIAL FROM	DOWN TO	626-0008		
		C		

⑨ AT CD } SPEC A
AT DD }

208,240,480,600V.,	3PH 4W 50/60HZ
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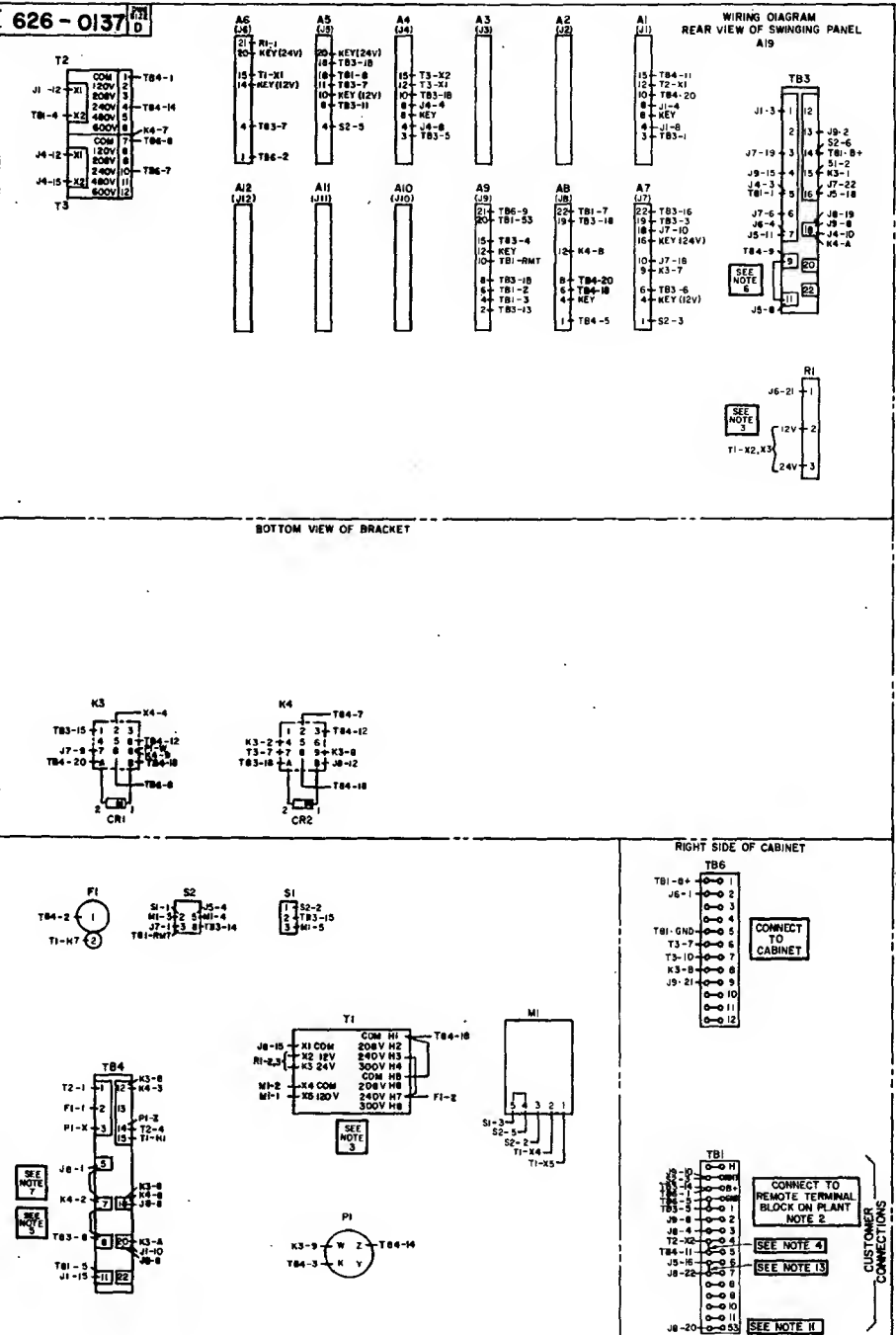
626-0008

CONTROL ACCESSORY PANELS*

DIAGRAM	PAGE
Begin Spec B	
626-0137 Group 11, 1 Phase	28-29
626-0138 Group 11, 3 Phase	30-31
626-0139 Group 12, 1 Phase	32-33
626-0140 Group 12, 3 Phase	34-35
626-0141 Group 13, 1 Phase	36-37
626-0142 Group 13, 3 Phase	38-39
626-0143 Group 14, 1 Phase	40-41
626-0144 Group 14, 3 Phase	42-43
626-0145 Group 15, 3 Phase	44-45
626-0146 Group 15, 1 Phase	46-47
Spec A	
626-0037 Group 11, 1 Phase	48-49
626-0038 Group 11, 3 Phase	50-51
626-0039 Group 12, 1 Phase	52-53
626-0040 Group 12, 3 Phase	54-55
626-0041 Group 13, 1 Phase	56-57
626-0042 Group 13, 3 Phase	58-59
626-0043 Group 14, 1 Phase	60-61
626-0044 Group 14, 3 Phase	62-63
626-0045 Group 15, 1 Phase or 3 Phase	64-65
626-0046 Group 15, 1 Phase	66-67

* See index on page 121 for the module wiring diagrams of the control accessory panels.

626-0137



The diagram illustrates the electrical architecture of a vehicle, likely a train or tram, based on the component types and labeling. Key elements include:

- Power Sources & Transformers:** Multiple transformer units are shown, labeled T1 through T6. They have various primary and secondary windings (e.g., 120V, 240V, 480V, 600V). Transformer T1 has a secondary winding connected to a 120V source via X4 and M1.
- Control & Protection Components:** Relays (CR1, CR2), switches (S1, S2), and fuses (F1) are used throughout the system. A "NORMAL TEST" switch is associated with terminal S1.
- Wiring & Terminals:** Numerous terminals are labeled, including K3, K4, AB, SI, S2, and others. Wires connect these terminals to various components and power sources.
- Grounding:** A common ground connection is indicated at the bottom right, labeled "GND".
- Notes & References:** Several callouts point to specific parts of the circuit: "SEE NOTE 4" points to transformer T2; "SEE NOTE 6" points to transformer T3; "SEE NOTE 9" points to switch S2; "SEE NOTE 10" points to switch K3; "SEE NOTE 11" points to terminal S3; "SEE NOTE 12" points to a stop button; "SEE NOTE 13" points to terminal TB1.

2. WIRE START ON AT C & AT D
CONNECT TO B+ AND R INT
3. WIRE START ON AT E
CONNECT TO B1,2 & B3
3. FOR 12V BATTERY CONNECT WIRE MARKED
T1-X2,3 R1-2,3 BETWEEN T-X2 & R1-2 (AT D & E)
FOR 24V BATTERY CONNECT WIRE MARKED
T1-X2,3 R1-2,3 BETWEEN T1-X3 & R1-3 (AT C)
4. TO ADD AREA PROTECTION EQUIPMENT,
OR REMOTE TEST TRANSFER SWITCH,
REMOVE JUMPER BETWEEN TBI -4 & 5
5. TO ADD OVER-VOLTAGE SENSING,
REMOVE JUMPER BETWEEN TBI-7 & 9
6. TO ADD OVER B UNDER FRED SENSING,
REMOVE JUMPER BETWEEN TBI-9 & 11
7. TO ADD PUSH TO RETRANSFER (MOTDR
TIMER) REMOVE JUMPER BETWEEN
TBI-5 & 7
8. THIS CONTACT SYMBOLIZES A SOLID
STATE SWITCH THAT CLOSURES WHEN
VOLTAGE IS NORMAL (AI & A4)
9. TEST DR EXERCISE (S2 SHOWN IN
WITHOUT LOAD POSITION)
9.1. WITH LOAD- PLANT STARTS AND
TAKES OVER LOAD. PLANT RUNS
FOR DURATION OF TEST OR
EXERCISE PERIOD PLUS ANY
TIME DELAYS
9.2. WITHOUT LOAD- PLANT STARTS
AND RUNS FOR DURATION OF
TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID
STATE SWITCH WHICH CLOSURES AFTER
D 5 SEC TO 10 SEC DELAY AND OPENS
AFTER A D 5 MIN TO 3 MIN DELAY
11. OVERCRAWK SIGNAL ON AT E ONLY.
CONNECT TO TERMINAL 53 IN REMOTE
ANNUNCIATOR
12. 2 TO 3 WIRE CONVERTER (USED ON AT E
ONLY). THE SELECTOR SWITCH HAS THREE
POSITIONS
STOP ----- SHUTS DOWN THE PLANT AND
PREVENTS IT FROM STARTING.
USE THIS POSITION WHEN
SERVICING THE PLANT.
NORMAL ----- ALLOWS THE PLANT TO START
AND ASSUME THE LOAD IF A
LINE FAILURE OCCURS.
HAND CRANK ----- PREVENTS AUTOMATIC PLANT
STARTING BUT ALLOWS STARTING
AND STOPPING AT THE PLANT.
USE THIS POSITION FOR PLANT
MAINTENANCE.
13. TO ADD PARALLELING SWITCH BOARD TRANSFER
INHIBIT CIRCUIT REMOVE JUMPER TBI-6 & 7

BATTERY CHARGER MODULE
1 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD - WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)

TD START-STOP

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	
MODEL	50/6DNz
AT C	-D1
AT D	-O2
AT E	-O3

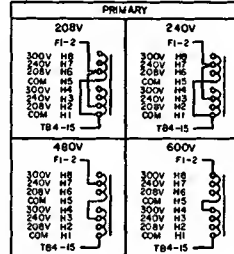
REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C	1 UNDER VOLTAGE SENSOR (LINE
A2.3	300-0937	B	2 MODULE - BLANK (SPARE)
A4	300-0780	C	1 UNDER VOLTAGE SENSOR (GEN
A5	300-0047	B	1 MODULE - VOLTAGE 12V (AT D B
A6	300-0848	B	1 MODULE - 24V TO 12V CONVERTER (AT C
A7	300-0793	C	1 BATTERY CHARGER - 2 AMP (AT D B
A7	300-0921	C	1 BATTERY CHARGER - 2 AMP (AT C
A7	300-0922	C	1 TO START STOP 12V (AT D B
A7	300-0922	C	1 TO START STOP 24V (AT C
A8	300-0927	B	1 TO 12 SEC DELAY ON START 0.5 SEC TO 5 MIN DELAY ON STOP
A9	300-0937	B	1 BYPASS PLUG-TRANSFER SET S1 D1 & S2 ON
A9	300-0936	B	1 MODULE - BLANK (SPARE) (AT C B
A10,11,12	300-0937	B	3 2 TO 3 WIRE CONVERTER (AT E
A10,11,12	300-0937	B	3 MODULE - BLANK (SPARE)
A19	300-1133	C	1 PANEL ASSY - SWINGING
F1	321-0180 (REF)	P	1 FUSE - 1 AMP 600V
F1	321-0178 (REF)	P	1 FUSE - HOLDER
K3	307-1058	B	1 RELAY - INTERPOSING LINE 12V
K4	307-1058	B	1 RELAY - INTERPOSING GEN 12V
M1	332-1484	A	1 PLATE - CLOCK COVER
P1	321-0901 (REF)	A	1 PLUG - LINE DISCONNECT
R1	313-0046 (REF)	A	1 RESISTOR - 6 OHM 2.5 OHM TAP 75W
S1	308-0322 (REF)	P	1 SWITCH - TEST TRANSFER
S2	308-0322 (REF)	P	1 SWITCH - SELECTOR
T1	315-0379 (REF)	B	1 TRANSFORMER - BAT CHARGER
T2.3	315-0379 (REF)	C	1 TRANSFORMER ASSY - STEPDOWN
T3	332-1699	A	1 MARKER STRIP
T86	332-1469	A	1 MARKER STRIP
	339-0776 (REF)	E	1 HARNESS - MAIN
	332-1279	-	7 PLUG - KEYING
	323-0844	P	4 GUIDES - PC BOARD
	301-3593	B	1 COVER - RACK

626-0137

[illegible]

NOTES:
1. ALL COMPONENTS SHOWN IN
DE-ENERGIZED POSITION UNLESS
OTHERWISE NOTED

2. WIRE START ON A,C @ B @ D
CONNECT TO B+,GNB & RMT
3 WIRE START ON D
CONNECT TO B1,I2,& 3
3. FOR I2V BATTERY CONNECT WIRE M1
T1-X2,3 R1-2,3 BETWEEN T1-X2 B1-R1-2
FOR 2-4V BATTERY CONNECT WIRE M1
T1-X2,3 R1-2,3 BETWEEN T1-X3 & R1-5
4. TO ADD AREA PROTECTION EQUIPMENT,
OR REMOTE TEST TRANSFER SWITCH,
REMOVE JUMPER BETWEEN T1-I1 & 5
5. TO ADD DIVER-VOLTAGE SENSING,
REMOVE JUMPER BETWEEN T1-I4-7&9
6. TO ADD OVER & UNDER FREQ SENSING,
REMOVE JUMPER BETWEEN T1-S3-9&11
7. TO ADD PUSH TO RETRANSFER (MOTOR
TIMER) REMOVE JUMPER BETWEEN
T1-I4-10&7
8. THIS CONTACT SYMBOLIZES A SOLID
STATE SWITCH THAT CLOSING WHEN
VOLTAGE IS NORMAL (A1,A2,3,4&A4)
9. TEST DR EXERCISE (S2 SHOWN IN
WITHOUT LOAD POSITION)
9.1. WITH LOAD - PLANT STARTS AND
TAKES OVER LOAD, PLANT RUNS
FOR DURATION OF TEST OR EXERCISE
EXERCISE PERIOD PLUS ANY
TIME DELAYS
9.2. WITHOUT LOAD - PLANT STARTS
AND RUNS FOR DURATION OF
TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID
STATE SWITCH WHICH CLOSURES AFTER
0.5 SEC TO 15 SEC DELAY AND OPENS
AFTER A 0.5MIN TO 5 MIN DELAY
11. WIRE TRANSFORMERS T2,3,4 & 5 AS
FOLLOWS
FOR 208V CONNECT
T4-1 TO T2-3
T1-I6-7 TO T3-9
T5-7 TO T4-3
T2-1 TO T5-9
FOR 240V CONNECT
T1-I6-7 TO T3-10
T5-7 TO T4-4
T5-7 TO T5-10
FOR 480V CONNECT
T4-1 TO T2-5
T1-I6-7 TO T3-11
T5-7 TO T4-5
T2-1 TO T5-11
FOR 600V CONNECT
T4-1 TO T2-6
T1-I6-7 TO T3-12
T5-7 TO T4-6
T2-1 TO T5-12



REF DES	PART NO	ATT	QTY	PARTS LIST	DESCRIPTION
AI,2,3	300-0780	C	3	1	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C	1	1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B	1	1	MODULE - VOLTAGE 12V (AT D & E)
A6	300-0848	B	1	1	MODULE - 24V TO 12V CONVERTER (AT C)
A6	300-0793	C	1	1	BATTERY CHARGER- 2 AMP (VAT D & E)
A7	300-0794	C	1	1	BATTERY CHARGER- 2 AMP 24V (AT C)
A7	300-0921	C	1	1	TO START- STOP 12V (AT D & E)
A7	300-0922	C	1	1	TO START- STOP 24V (AT D & E)
A8	300-0927	B	1	1	0.5 SEC TO 15 SEC DELAY ON START
A8	300-0927	B	1	1	0.5 SEC TO 5 MIN DELAY ON STOP
A8	300-0927	B	1	1	BYPASS PLUG- TRANSFER SET S1 ON & S2 DN
A9	300-0937	B	1	1	MODULE- BLANK (SPARE) (AT C & D)
A10	300-0926	C	1	1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B	1	1	MODULE- BLANK (SPARE)
AI1,12	300-0937	B	2	1	MODULE - BLANK (SPARE)
A19	300-1134	C	1	1	PLANT ASSY- SWINGING
F1	321-0180REF	P	1	1	FUSE - 1 AMP 600V
F1	321-0187REF	P	1	1	FUSE - HOLDER
K3	307-1058	B	1	1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B	1	1	RELAY - INTERPOSING GEN 12V
M1	332-1484	A	1	1	PLATE - CLOCK COVER
P1	323-0901REF	A	1	1	PLUG- LINE DISCONNECT
R1	333-0044REF	P	1	1	RESISTOR- 6 OHM 2.5 OHM TAP 75W
S1	308-0320REF	P	1	1	SWITCH-TEST TRANSFER
S2	308-0320REF	P	1	1	SWITCH - SELECTOR
T1	315-0799REF	B	1	1	TRANSFORMER - BAT CHARGER
T2-5	315-0799REF	C	2	1	TRANSFORMER ASSY- STEPDOWN
TBI	332-1469	A	1	1	MARKER STRIP
TB6	332-1469	A	1	1	MARKER STRIP
	338-0777REF	E	1	1	HARNES-MAIN
	332-1275	-	8	1	PLUG- RACK
	301-3593	B	1	1	COVER - BACK
	332-0050	B	1	1	CLIP - WIRE

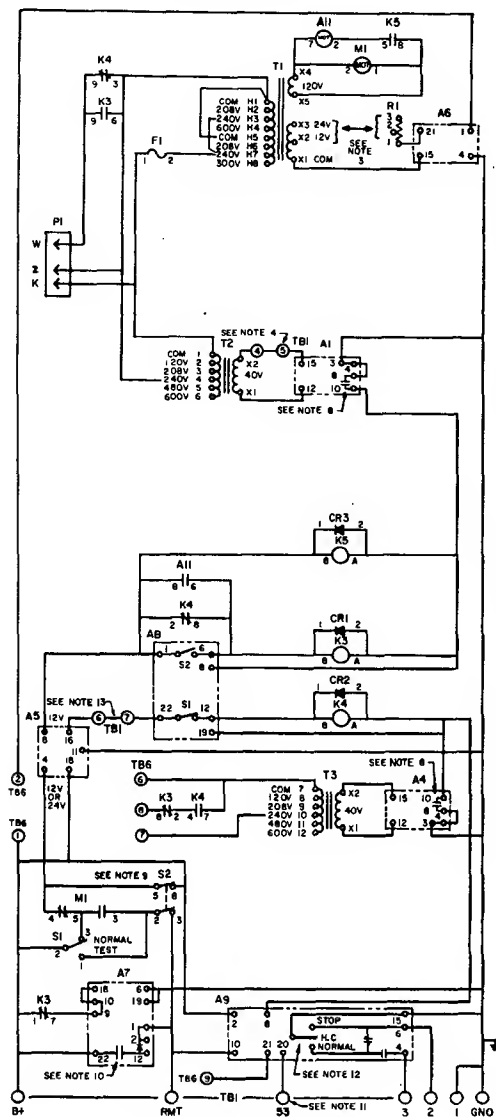
13. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER TBI-6&7
 14. OVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL 63 IN REMOTE ANNUNCIATOR
 15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
STOP --- SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
NORMAL --- ALLOWS PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
HAND CRANK --- PREVENTS AUTOMATIC PLANT STARTING, BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
- CONTROL ACCESSORY GROUP: II
BATTERY CHARGER MODULE
3 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD-WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)
- TO START-STOP

**THIS INFORMATION
IS FOR
MANUFACTURERS**

USE ONLY	
MODEL	50/60Hz
AT C	-01
AT O	-02
AT E	-03

DATE	TIME	FROM	TO	BY	REMARKS
10-10-74	15:10	10-10-74	15:10	10-10-74	10-10-74
<div style="display: flex; justify-content: space-between;"> <div> <p>FROM: <i>10-10-74</i></p> <p>TO: <i>10-10-74</i></p> <p>BY: <i>10-10-74</i></p> <p>REMARKS: <i>10-10-74</i></p> </div> <div> <p>DATE: <i>10-10-74</i></p> <p>TIME: <i>15:10</i></p> <p>FROM: <i>10-10-74</i></p> <p>TO: <i>10-10-74</i></p> <p>BY: <i>10-10-74</i></p> <p>REMARKS: <i>10-10-74</i></p> </div> </div>					

SCHEMATIC DIAGRAM



NOTES

- 1 ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
- 2 WIRE START ON AT C & AT O CONNECT TO B4 GND & RMT
- 3 WIRE START ON AT E CONNECT TO B4 1,2 & 3
3. FOR 12V BATTERY CONNECT WIRE MARKED T1-K2, X3 R1-2,3 BETWEEN T1-X2 & R1-2 (AT D & E)
- FOR 24V BATTERY CONNECT WIRE MARKED T1-K2, X3 R1-2,3 BETWEEN T1-X3 & R1-3 (AT C)
- 4 TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB1-4 & 5
- 5 TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
- 6 TO ADD OVER & UNDER FREO SENSING, REMOVE JUMPER BETWEEN TB3-9 & 11
- 7 TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN TB4-5 & 7
- 8 THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES WHEN VOLTAGE IS NORMAL (A1 & A4)
- 9 TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
- 9.1 WITH LOAD-PLANT STARTS AND TAKES OVER LOAD PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
- 9.2 WITHOUT LOAD-PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSSES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. OVERCRANK SIGNAL ON AT E ONLY CONNECT TO TERMINAL 53 IN REMOTE ANNUNCIATOR
12. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
- STOP-----SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
- NORMAL-----ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
- HAND CRANK-----PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
13. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER TB1-8 & 7

CONTROL ACCESSORY GROUP 12

BATTERY CHARGER MODULE
1 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD-WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)
EXERCISER CLOCK
TO START-STOP

TO RETRANSFER (MOTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

MODEL	60 Hz	50 Hz
AT C	-01	-04
AT O	-02	-05
AT E	-03	-06

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C	1 UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B	2 MODULE-BLANK (SPARE)
A4	300-0780	C	1 UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B	1 MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B	1 MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0793	C	1 BATTERY CHARGER-2 AMP (AT O & E)
A7	300-0794	C	1 BATTERY CHARGER-2 AMP (AT C)
A7	300-0921	C	1 TO START STOP 12V (AT O & E)
A7	300-0922	C	1 TO START STOP 24V (AT C)
A8	300-0927	B	1 0.5 SEC TO 10 SEC DELAY ON START 0.5 SEC TO 5 MIN DELAY ON STOP BYPASS PLUG-TRANSFER SET S1 ON & S2 OFF
A9	300-0937	B	1 MODULE-BLANK (SPARE) (AT C & O)
A10	300-0926	C	1 2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B	1 MODULE-BLANK (SPARE)
A11	307-1199	B	1 ASSY-RETRANSFER 120V 50/60Hz
A19	300-1133	C	1 PANEL ASSY-SWINGING
F1	321-0808REF	P	1 FUSE-1 AMP 600V
F1	321-0780REF	P	1 FUSE-HOLDER
K3	307-1058	B	1 RELAY-INTERPOSING LINE 12V
K4	307-1058	B	1 RELAY-INTERPOSING GEN 12V
K5	307-1058	B	1 RELAY-TIMER 12V
M1	307-1104	B	1 CLOCK-PLANT EXERCISER 120V 50Hz
M1	307-1102	B	1 CLOCK-PLANT EXERCISER 120V 60Hz
P1	323-0900REF	A	1 PLUG-LINE DISCONNECT
R1	353-0044REF	A	1 RESISTOR-6 OHM 2.5 OHM TAP 75W
S1	308-0321REF	P	1 SWITCH-TEST TRANSFER
S2	308-0322REF	P	1 SWITCH-SELECTOR
T1	315-0372REF	B	1 TRANSFORMER-BAT CHARGER
T2,3	315-0374REF	C	1 TRANSFORMER ASSY-STEPPDOWN
TB1	332-1669	A	1 MARKER STRIP
TB6	332-1469	A	1 MARKER STRIP
	338-0776REF	E	1 HARNESS-MAIN
	338-0677	C	1 HARNESS-MOTOR TIMER
	332-1279	-	7 PLUG-KEYING
	301-3593	B	1 COVER-RACK
	307-1157	P	1 SPRING-RELAY HOLOGDOWN

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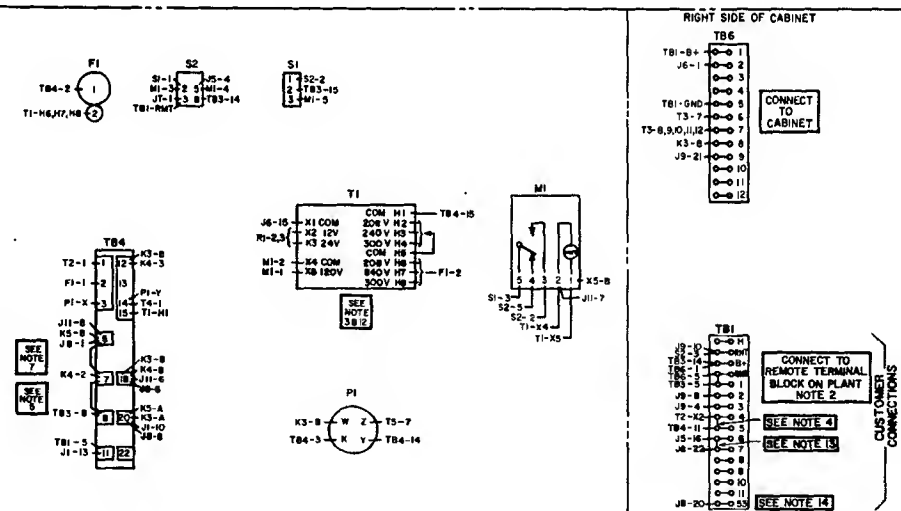
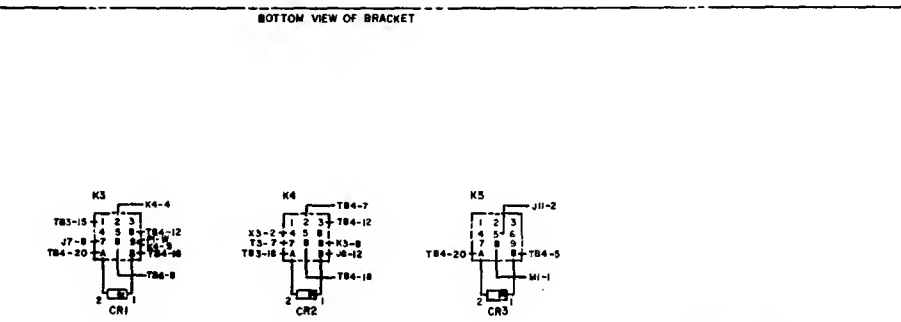
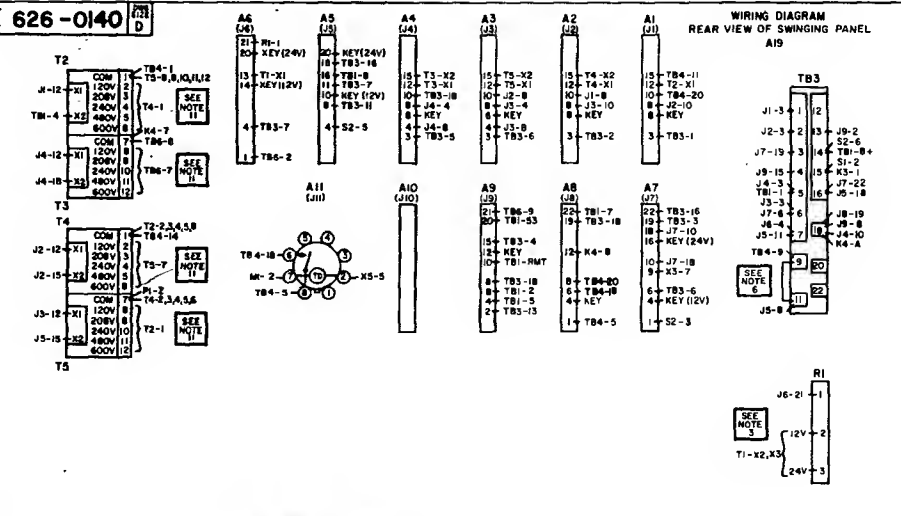
4-18-74 CDR SPEC B CONTROL ACCESS. PANEL (WIRING DIAGRAM)

240V 2W 120/240V 3W 1PH 50/60Hz

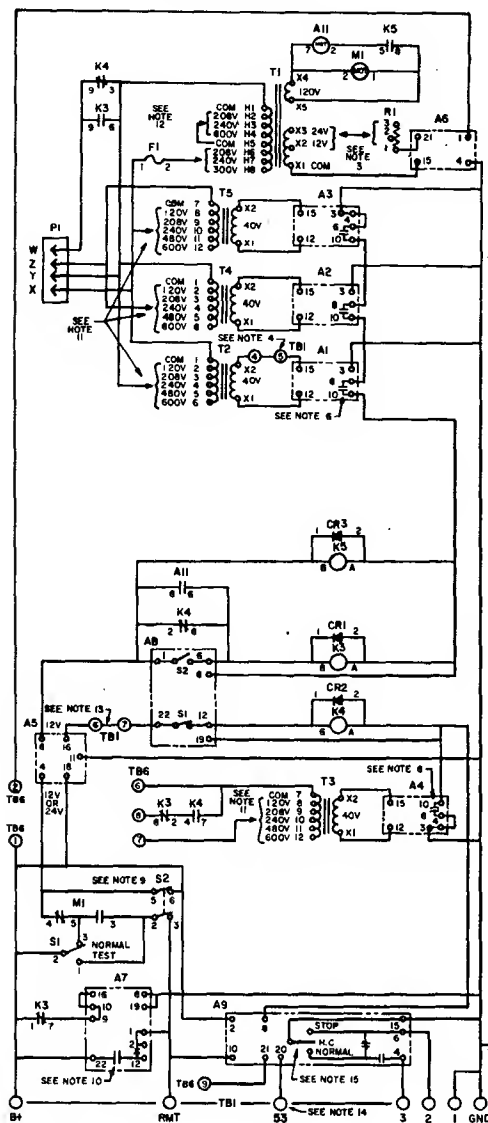
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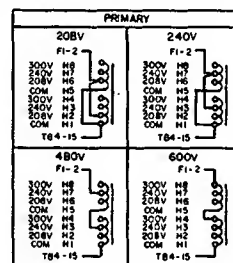


SCHEMATIC DIAGRAM



- NOTES:
- ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
 - 2 WIRE START ON AT C & AT D CONNECT TO B+, GND & RMT 3 WIRE START ON AT E CONNECT TO B+, I2, & S3
 - FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2,3 BETWEEN T1-X2 & R1-2 (AT D & E) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2,3 BETWEEN T1-X3 & R1-3 (AT C)
 - TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN T84-4 & 5
 - TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN T84-7 & 9
 - TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN T83-9 & 11
 - TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN T84-5 & 7
 - THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1, A2, A3, A4)
 - TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
 - THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 15 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
 - WIRE TRANSFORMERS T2, 3, 4 & 5 AS FOLLOWS:
 - FOR 208V CONNECT T4-1 TO T2-3 T86-7 TO T3-9 T5-7 TO T4-3 T2-1 TO T5-9 T4-1 TO T2-4
 - FOR 240V CONNECT T86-7 TO T3-10 T5-7 TO T4-4 T2-1 TO T5-10 T4-1 TO T2-5
 - FOR 480V CONNECT T86-7 TO T3-11 T5-7 TO T4-5 T2-1 TO T5-11 T4-1 TO T2-6
 - FOR 600V CONNECT T86-7 TO T3-12 T5-7 TO T4-6 T2-1 TO T5-12

12. WIRE T1 TRANSFORMER AS FOLLOWS:



REF DES	PART NO	QTY	DESCRIPTION
A1, 2, 3	300-0780	C 3	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT D & E)
A6	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A7	300-0793	C 1	BATTERY CHARGER - 2 AMP 24V (AT C)
A8	300-0794	C 1	BATTERY CHARGER - 2 AMP 24V (AT C)
A9	300-0921	C 1	TO START - STOP 12V (AT D & E)
A10	300-0922	C 1	TO START - STOP 24V (AT C)
			0.5 SEC TO 15 SEC DELAY ON START
			0.5 SEC TO 5 MIN DELAY ON STOP
A8	300-0927	B 1	BYPASS PLUG - TRANSFER SET SI ON & S2 OFF
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & D)
A10	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B 1	MODULE - BLANK (SPARE)
A11	307-1199	B 1	ASSY - RETRANSFER 120V 50/60Hz
A19	300-1134	C 1	PANEL ASSY - SWINGING
F1	321-0180REF	P 1	FUSE - 1 AMP 600V
F1	321-0178REF	P 1	FUSE - HOLDER
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY - TIMER 12V
M1	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 50Hz
M1	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60Hz
R1	323-0309REF	A 1	PLUG - LINE DISCONNECT
R1	323-0309REF	A 1	RESISTOR - 5 OHM 2.5 OHM TAP 75W
S1	308-0328REF	P 1	SWITCH - TEST TRANSFER
S2	308-0328REF	P 1	SWITCH - SELECTOR
T1	315-0379REF	B 1	TRANSFORMER - BAT CHARGER
T2-5	315-0379REF	C 2	TRANSFORMER ASSY - STEPDOWN
T81	332-1699	A 1	MARKER STRIP
T86	332-1469	A 1	MARKER STRIP
	338-0777REF	E 1	HARNESS - MAIN
	338-0677	C 1	HARNESS - MOTOR TIMER
	332-1279	- 13	PLUG - KEYING
	301-3593	B 1	COVER - RACK
	332-0050	- 1	CLIP - WIRE

13. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER T81-6 & 7

14. OVERCRANK SIGNAL ON AT E ONLY, CONNECT TO TERMINAL 53 IN REMOTE ANNUNCIATOR

15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS: STOP --- SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT. NORMAL --- ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS. HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

CONTROL ACCESSORY GROUP 12

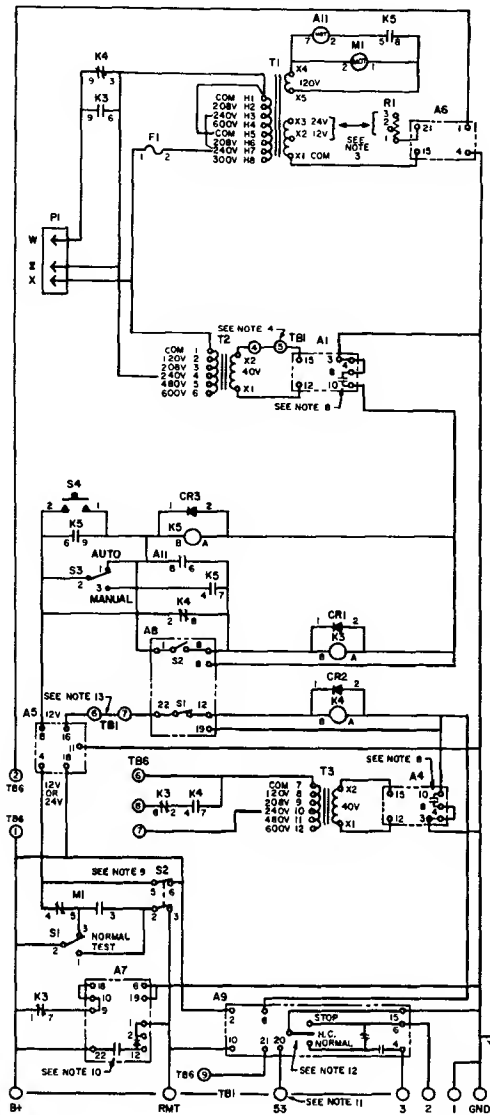
- BATTERY CHARGER MODULE
- 3 UNDER VOLTAGE SENSOR MODULES (LINE)
- 1 UNDER VOLTAGE SENSOR MODULE (GEN)
- NORMAL - TEST SWITCH
- WITH LOAD - WITHOUT LOAD SWITCH
- 2 TO 3 CONVERTER (AT E ONLY)
- EXERCISER CLOCK
- TO START - STOP
- TO RETRANSFER (MOTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	
MODEL	60 Hz 50 Hz
AT C	-01 -04
AT D	-02 -05
AT E	-03 -06

626-0140

REV	208 VOLT 50/60	DATE	01/21/74
REV	240 VOLT 50/60	DATE	01/21/74
REV	480 VOLT 50/60	DATE	01/21/74
REV	600 VOLT 50/60	DATE	01/21/74
REV	3PH, 4W, 60/60Hz	DATE	01/21/74
CONTROL ACCESS. PANEL (WIRING DIAGRAM)			
626-0140			

SCHMATIC DIAGRAM



- NOTES:
1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
 2. WIRE START ON AT C & AT D CONNECT TO B, GND & RMT
 3. WIRE START ON AT E CONNECT TO B, 1, 2, & 3
 4. EDR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X2 & R1-2 (AT D & E) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X3 & R1-3 (AT C)
 5. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN T81-4 & 5
 6. TO ADD DVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN T84-7 & 9
 7. TO ADD DVER & UNDER FRED SENSING, REMOVE JUMPER BETWEEN T83-9 & 11
 8. REMOVE JUMPER BETWEEN T84-5 & 7
 9. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING WHEN VOLTAGE IS NORMAL (AT A & 4)
 10. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 9.1. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD, PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
 11. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSING AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 5 MIN TO 5 MIN DELAY
 12. DVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL S3 IN REMOTE ANNUNCIATOR.
 - 12.2. TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP-----SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL-----ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK-----PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
 13. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER T81-6 & 7

CONTROL ACCESSORY GROUP: 13

BATTERY CHARGER MODULE
 1 UNDER VOLTAGE SENSOR MODULES (LINE)
 1 UNDER VOLTAGE SENSOR MODULE (GEN)
 NORMAL - TEST SWITCH
 WITH LOAD-WITHOUT LOAD SWITCH
 2 TO 3 CONVERTER (AT E ONLY)
 EXERCISER CLOCK
 TO START-STOP
 PUSH TO RETRANSFER SWITCH
 AUTO-MANUAL RETRANSFER SWITCH

TO RETRANSFER (MDTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

MODEL	60 Hz	50 Hz
AT C	-D1	-D4
AT D	-D2	-D5
AT E	-D3	-D6

REF DES	PART NO	QUANTITY	DESCRIPTION
A1	300-0780	C	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B	MODULE - BLANK (SPARE)
A4	300-0780	C	UNDER VOLTAGE SENSOR (GEN)
A5	300-0844	B	MODULE - VOLTAGE 12V (AT D & E)
A6	300-0848	B	MODULE - 24V TO 12V CONVERTER (AT C)
A7	300-0793	C	BATTERY CHARGER - 2 AMP (AT C)
A8	300-0921	C	TO START STOP 12V (AT D & E)
A9	300-0922	C	TO START STOP 24V (AT C)
A10	300-0926	C	0.5 SEC TO 10 SEC DELAY ON START
A11	300-0927	B	0.5 SEC TO 5 MIN DELAY ON STOP
A12	300-0927	B	BYPASS PLUG - TRANSFER SET SI ON & S2 OFF
A13	300-0937	B	MODULE - BLANK (SPARE) (AT C & D)
A14	300-0937	B	2 TO 3 WIRE CONVERTER (AT E)
A15	300-0937	B	MODULE - BLANK (SPARE)
A16	307-1199	B	ASSY - RETRANSFER 120V 50/60HZ
A17	300-1133	C	PANEL ASSY - SWINGING
F1	321-0100REF	P	FUSE - 1 AMP 600V
F2	321-0100REF	P	FUSE - 1 AMP 600V
K3	307-1058	B	RELAY - INTERPOSING LINE 12V
K4	307-1058	B	RELAY - INTERPOSING GEN 12V
K5	307-1058	B	RELAY - TIMER 12V
M1	307-1104	B	CLOCK - PLANT EXERCISER 120V 50HZ
M2	307-1102	B	CLOCK - PLANT EXERCISER 120V 60HZ
P1	323-0901REF	A	PLUG - LINE DISCONNECT
R1	333-0046REF	A	RESISTOR - 6 OHM 2.5 OHM TAP 75W
S1	308-0321REF	P	SWITCH - TEST TRANSFER
S2	308-0321REF	P	SWITCH - SELECTOR
S3	308-0321	P	SWITCH - MANUAL & AUTO
S4	308-0175	A	SWITCH - RETRANSFER
T1	315-0374REF	B	TRANSFORMER - BAT CHARGER
T2,3	315-0374REF	C	TRANSFORMER ASSY - STEPDOWN
T81	332-1899	A	MARKER STRIP
T86	332-1469	A	MARKER STRIP
T88	338-0175REF	E	HARNESS - MAIN
T89	338-0644	C	HARNESS - RETRANSFER
T90	338-0677	C	HARNESS - MDTOR TIMER
T91	332-1279	-	PLUG - KEYING
T92	301-3593	B	COVER - RACK
T93	307-1157	P	SPRING - RELAY HOLDDOWN

626-0141

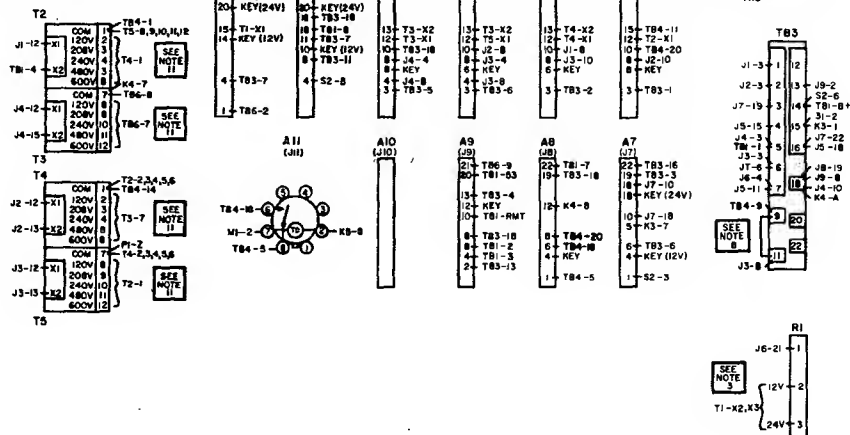
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6-17-74

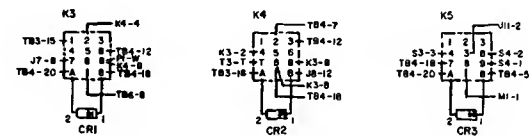
CONTROL ACCESS. PANEL (WIRING DIAGRAM)

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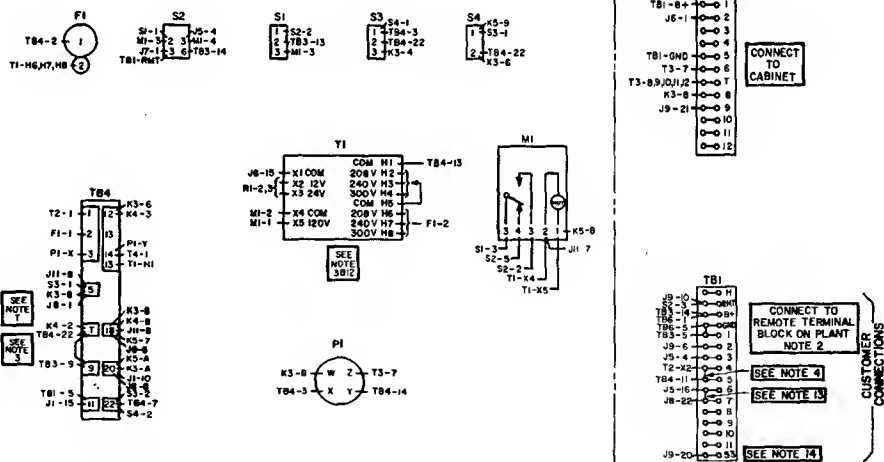
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P1
DWIRING DIAGRAM
REAR VIEW OF SWINGING PANEL
A19

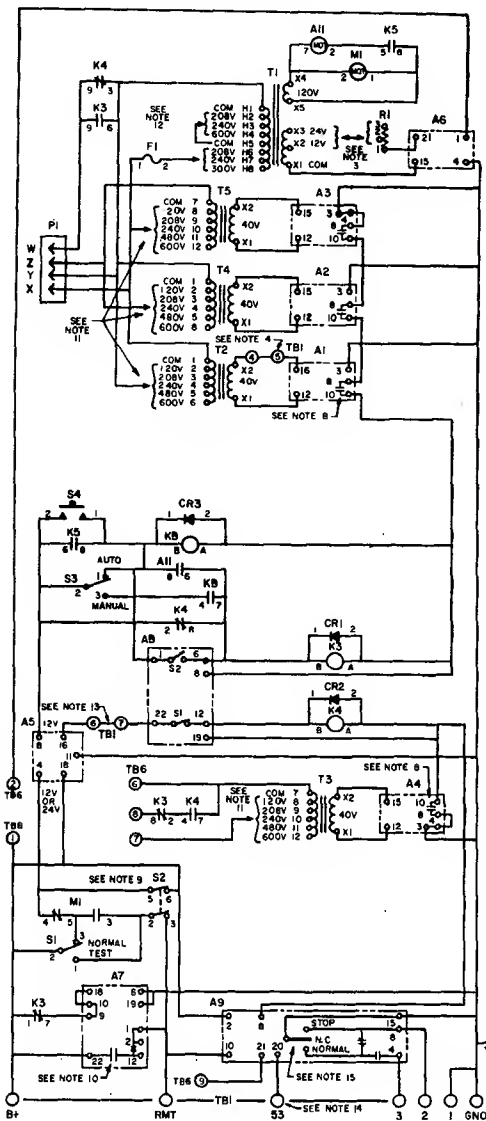
BOTTOM VIEW OF BRACKET



RIGHT SIDE OF CABINET

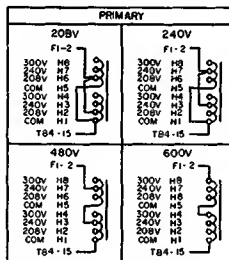


SCHEMATIC DIAGRAM



NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START ON AT C & D CONNECT TO B+, GND & RMT
3. WIRE START ON AT E CONNECT TO B+, L2, B3
3. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2,3 BETWEEN T1-X2 & R1-2 (AT D & E) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2,3 BETWEEN T1-X3 & R1-2 (AT C)
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TBI-4 & 5
5. TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
6. TO ADD OVER & UNDER FRED SENSING, REMOVE JUMPER BETWEEN TB3-9 & 11
7. REMOVE JUMPER BETWEEN TB4-5 & 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1, A2, A3, A4)
9. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 9.1. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 15 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. WIRE TRANSFORMERS T2, 3, 4 & 5 AS FOLLOWS
 - FOR 208V CONNECT T4-1 TO T2-3 TB6-7 TO T3-9 T5-7 TO T4-3 T2-1 TO T5-9
 - FOR 240V CONNECT T4-1 TO T2-4 TB6-7 TO T3-10 T5-7 TO T4-4 T2-1 TO T5-11
 - FOR 480V CONNECT T4-1 TO T2-5 TB6-7 TO T3-11 T5-7 TO T4-5 T2-1 TO T5-12
 - FOR 600V CONNECT T4-1 TO T2-6 TB6-7 TO T3-12 T5-7 TO T4-6 T2-1 TO T5-12
12. WIRE T1 TRANSFORMER AS FOLLOWS:



REF DES	PART NO	QTY	DESCRIPTION
A1,2,3	300-0780	C 3	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT D & E)
A6	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A7	300-0793	C 1	BATTERY CHARGER - 2 AMP 24V (AT D & E)
A7	300-0794	C 1	BATTERY CHARGER - 2 AMP 24V (AT D & E)
A7	300-0821	C 1	TO START - STOP 12V (AT D & E)
A7	300-0822	C 1	TO START - STOP 24V (AT C)
A8	300-0927	B 1	0.5 SEC TO 15 SEC DELAY ON START
A8	300-0927	B 1	0.5 SEC TO 5 MIN DELAY ON STOP
A8	300-0927	B 1	BYPASS PLUG - TRANSFER SET S1 ON & S2 OFF
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & D)
A9	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B 1	MODULE - BLANK (SPARE)
A11	307-1199	B 1	ASSY - RETRANSFER 120V 50/60HZ
A19	300-1134	C 1	PANEL ASSY - SWINGING
F1	321-0800	P 1	FUSE - 1 AMP 600V
F1	321-0780	P 1	FUSE - HOLDER
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY - TIMER & RETRANSFER 12V
M1	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 50HZ
M1	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60HZ
P1	353-0900	A 1	PLUG - LINE DISCONNECT
R1	353-0046	A 1	RESISTOR - 6 OHM 2.5 OHM TAP 75W
S1	308-0321	P 1	SWITCH - TEST TRANSFER
S2	308-0322	P 1	SWITCH - SELECTOR
S3	308-0521	P 1	SWITCH - MANUAL & AUTO
S4	308-0175	A 1	SWITCH - RETRANSFER
S4	98-2467	A 1	SILKSCREEN - RETRANSFER
T1	35-0379	B 1	TRANSFORMER - BAT CHARGER
T2-5	35-0374	C 2	TRANSFORMER ASSY - STEPDOWN
TBI	332-1639	A 1	MARKER STRIP
TB6	332-1469	A 1	MARKER STRIP
	338-0777	E 1	HARNES - MAIN
	338-0664	C 1	HARNES - RETRANSFER
	338-0677	C 1	HARNES - MOTOR TIMER
	332-1279	- 9	PLUG - KEYING
	301-3593	B 1	COVER - RACK
	332-0050	- 1	CLIP - WIRE

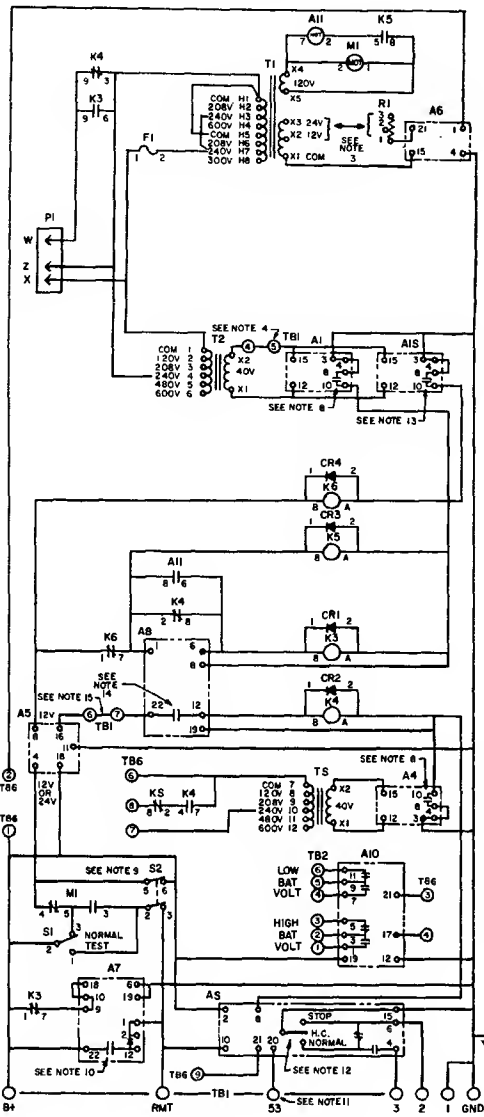
13. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER TBI-6 & 7
14. OVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL S3 IN REMOTE ANNUNCIATOR
15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY)
 - THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP - SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

CONTROL ACCESSORY GROUP 13
BATTERY CHARGER MODULE
3 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
2 TO 3 CONVERTER (AT E ONLY)
EXERCISER CLOCK
TO START - STOP
TO RETRANSFER (MOTOR)
PUSH TO RETRANSFER SWITCH
AUTO - MANUAL RETRANSFER SW.

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
MODEL	60 Hz	50 Hz	
AT C	-01	-04	
AT D	-02	-05	
AT E	-03	-06	

PROJ NO: 4-15-74 DESK: AT C } SPEC B AT D } AT E } 208,240,480,600V, 3PH, 4W, 50/60HZ	DIVISION OF OSEA CORPORATION 4-15-74 CDR CONTROL ACCESS. PANEL (WIRING DIAGRAM) 626-0142	REVISED DATE BY DATE
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SCHEMATIC DIAGRAM



NOTES:

- ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED.
- 2 WIRE START ON AT C & AT D CONNECT TO B+ GND & RMT 3 WIRE START DN AT E CONNECT TO B+, 1, 2, & 3
- FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X2 & R1-2 (AT O & E) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X3 & R1-5 (AT C)
- TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH REMOVE JUMPER BETWEEN T81-4 & 5
- REMOVE JUMPER BETWEEN T84-7 & 9
- TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN T83-9 & 11
- TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN T84-5 & 7
- THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (AI & A4)
- TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
- THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
- OVERCRANK SIGNAL ON AT E ONLY CONNECT TO TERMINAL 55, IN REMOTE ANNUNCIATOR
- 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP - SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
- THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE GOES ABOVE NORMAL (AIS)
- THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
- TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER T81-6 & 7

CONTROL ACCESSORY GROUP 14

- BATTERY CHARGER MODULE
 - 1 UNDER VOLTAGE SENSOR MODULE (LINE)
 - 1 UNDER VOLTAGE SENSOR MODULE (GEN)
 - NORMAL - TEST SWITCH
 - WITH LOAD - WITHOUT LOAD SWITCH
 - 2 TO 3 CONVERTER (AT E ONLY)
 - EXERCISER CLOCK
 - TO START - STOP
 - TO TRANSFER
 - BATTERY VOLTAGE SENSOR
 - OVER VOLTAGE SENSOR MODULE (LINE)
 - TO RETRANSFER (MOTOR)

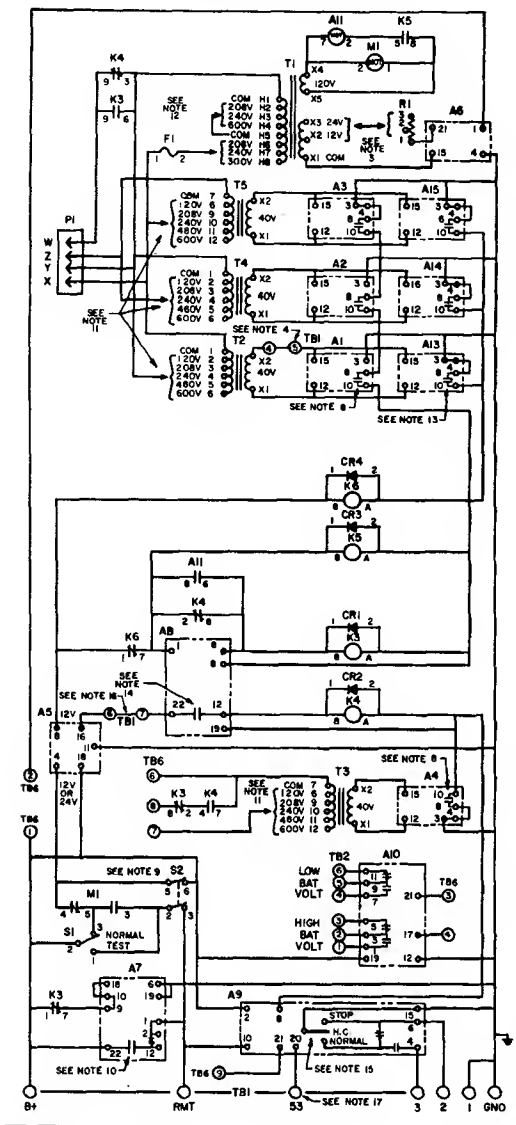
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

MODEL	60 Hz	50 Hz
AT C	-D1	-04
AT O	-02	-05
AT E	-03	-06

626-0143

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B	MODULE-BLANK (SPARE)
A4	300-0780	C	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B	MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B	MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0793	C	BATTERY CHARGER-2 AMP (AT O & E)
A7	300-0794	C	BATTERY CHARGER-2 AMP (AT C)
A7	300-0821	C	TO START STOP 12V (AT D & E)
A7	300-0822	C	TO START STOP 24V (AT C)
A8	300-0924	C	TO TRANSFER
A8	300-0924	C	0.5 SEC TO 10 SEC DELAY DN START
A8	300-0924	C	0.5 SEC TO 5 MIN DELAY ON STOP
A8	300-0924	C	TO TRANSFER
A8	300-0924	C	0.5 SEC TO 10 SEC DELAY DN TRANSFER
A9	300-0937	B	MODULE-BLANK (SPARE) (AT C & D)
A10	300-0926	C	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0796	C	BATTERY V SENSOR 12V (AT O & E)
A10	300-0797	C	BATTERY V SENSOR 24V (AT C)
A11	307-1198	B	ASSY-RETRANSFER 120V 50/60Hz
A13	300-0780	C	OVER VOLTAGE SENSOR (LINE)
A14-18	300-0937	B	MODULE-BLANK (SPARE)
A19	300-1135	C	PANEL ASSY-SWINGING
F1	321-0801(REF)	P	FUSE - 1 AMP 600V
F2	321-0780(REF)	P	FUSE - HOLDER
K3	307-1058	B	RELAY-INTERPOSING LINE 12V
K4	307-1058	B	RELAY-INTERPOSING GEN 12V
K5	307-1058	B	RELAY-TIMER 12V
K6	307-1058	B	RELAY-DIVER VOLTAGE LINE 12V
M1	307-1104	B	CLOCK-PLANT EXERCISER 120V 50/60Hz
M2	307-1102	B	CLOCK-PLANT EXERCISER 120V 60Hz
P1	323-0906(REF)	A	PLUG-LINE DISCONNECT
R1	353-0046(REF)	A	RESISTOR-6 OHM 2.5 OHM TAP 75W
S1	308-0321(REF)	P	SWITCH-TEST TRANSFER
S2	308-0322(REF)	P	SWITCH-SELECTOR
T1	315-0379(REF)	B	TRANSFORMER-BAT CHARGER
T2,3	315-0374(REF)	C	TRANSFORMER ASSY-STEPPDOWN
T81	332-1689	A	MARKER STRIP
T82	332-1516	A	MARKER STRIP
T86	332-1465	A	MARKER STRIP
	338-0770(REF)	E	HARNES-MAIN
	338-0648	D	HARNES-DIVER V
	338-0656	C	HARNES-BAT V
	338-0677	C	HARNES-MOTOR TIMER
	332-1275	-	PLUG-KEYING
	325-0814	P	GUIDES-PC BOARD
	307-1157	P	SPRING-RELAY NOLODOWN

SCHEMATIC DIAGRAM

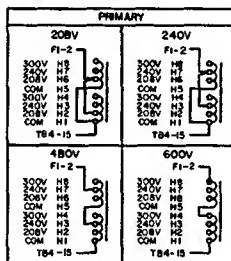


16. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER TBI-6 & 7
17. OVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL S3 IN REMOTE ANNUNCIATOR

NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. 2 WIRE START ON AT C & A AT O CONNECT TO B+, GND & RMT 3 WIRE START ON AT E CONNECT TO B1, I2, & 3
3. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2,X3 R12,2 BETWEEN T1-X2 & R1-2 (AT D & E) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2,X3 R12,3 BETWEEN T1-X2 & R1-3 (AT C)
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TBI-4 & B 5
5. REMOVE JUMPER BETWEEN TBI-7 & B 9
6. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TBI-9 & B 11
7. TO ADD PUSH TO RETRANSFER MOTOR, REMOVE JUMPER BETWEEN TBI-4 & B 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING WHEN VOLTAGE IS NORMAL (A1,A2,A3,B A4)
9. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 9.1. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSING AFTER 0.5 SEC TO 15 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. WIRE TRANSFORMERS T2,3,4 & 5 AS FOLLOWS

FOR 208V CONNECT	T2-1 TO T2-3	T3-7 TO T3-9	T4-1 TO T4-3	T5-7 TO T5-9
FOR 240V CONNECT	T2-1 TO T2-4	T3-7 TO T3-10	T4-1 TO T4-5	T5-7 TO T5-10
FOR 480V CONNECT	T2-1 TO T2-11	T3-7 TO T3-11	T4-1 TO T4-5	T5-7 TO T5-11
FOR 600V CONNECT	T2-1 TO T2-6	T3-7 TO T3-12	T4-1 TO T4-6	T5-7 TO T5-12
12. WIRE T1 TRANSFORMER AS FOLLOWS:



REV. DES	PART NO	QTY	DESCRIPTION
A1,2,3	300-0780	C 3	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT O & E)
AB	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A6	300-0793	C 1	BATTERY CHARGER - 2 AMP 24V (AT C)
A7	300-0921	C 1	TO START - STOP 12V (AT O & E)
	300-0922	C 1	TO START - STOP 24V (AT C)
			0.5 SEC TO 15 SEC DELAY ON START
			0.5 SEC TO 5 MIN DELAY ON STOP
AB	300-0924	C 1	TO TRANSFER
			0.5 SEC TO 15 SEC DELAY ON TRANSFER
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & O)
	300-0938	C 1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0794	C 1	BATTERY V SENSOR 12V (AT O & E)
	300-0797	C 1	BATTERY V SENSOR 24V (AT C)
A11	307-1199	B 1	ASSY - RETRANSFER 120V 50/60Hz
A13,A18	300-0740	C 3	OVER VOLTAGE SENSOR (LINE)
A16,17,18	300-0937	B 3	MODULE - BLANK (SPARE)
A19	300-1134	C 1	PANEL ASSY - SWINGING
F1	321-080REF	P 1	FUSE - 1 AMP 600V
	321-080REF	P 1	FUSE - HOLDER
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY - TIMER 12V
K6	307-1058	B 1	RELAY - OVER VOLTAGE LINE 12V
M1	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 60Hz
	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60Hz
P1	333-080REF	A 1	PLUG - LINE DISCONNECT
R1	333-0240REF	A 1	RESISTOR - 5 OHM 2.5 OHM TAP 75W
S1	308-032REF	P 1	SWITCH - TEST TRANSFER
S2	308-0322REF	P 1	SWITCH - SELECTOR
T1	315-0370REF	B 1	TRANSFORMER - BAT CHARGER
T2-5	315-0370REF	C 2	TRANSFORMER ASSY - STEPDOWN
TBI	332-4699	A 1	MARKER STRIP
TBI	332-1586	A 1	MARKER STRIP
TBI	332-1489	A 1	MARKER STRIP
	338-0777REF	E 1	HARNESS - MAIN
	338-0687	D 1	HARNESS - OVER V
	338-0688	C 1	HARNESS - BAT V
	338-0677	C 1	HARNESS - MOTOR TIMER
	332-1279	- 13	PLUG - KEYING
	323-0814	P 6	GUIDES - PC BOARD
	332-0050	- 1	CLIP - WIRE

13. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING WHEN VOLTAGE GOES ABOVE NORMAL (A13,A14 & A15)
14. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP - SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

CONTROL ACCESSORY GROUP 14

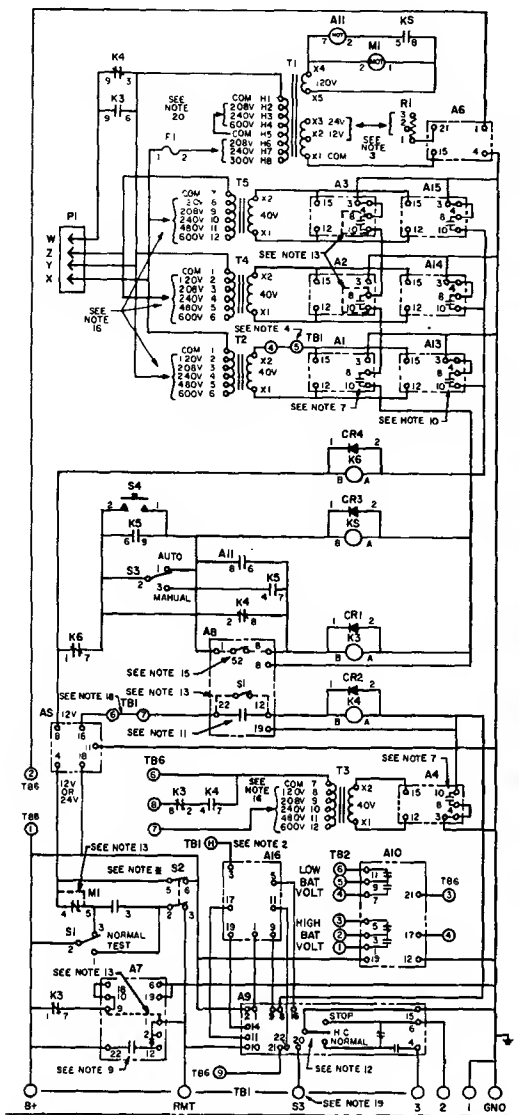
- BATTERY CHARGER MODULE
- 3 UNDER VOLTAGE SENSOR MODULES (LINE)
- 1 UNDER VOLTAGE SENSOR MODULE (GEN)
- NORMAL - TEST SWITCH
- WITH LOAD - WITHOUT LOAD SWITCH
- 2 TO 3 CONVERTER (AT E ONLY)
- EXERCISER CLOCK
- TO START - STOP
- TO TRANSFER
- BATTERY VOLTAGE SENSOR
- 3 OVER VOLTAGE SENSOR MODULES (LINE)
- TO RETRANSFER (MOTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

MODEL	50 Hz	50 Hz
AT C	-01	-04
AT D	-02	-05
AT E	-03	-06

REV. DES	DATE	BY	CHKD	DATE	BY
4-15-T4	10-1-74	WJS			
CONTROL ACCESS. PANEL (WIRING DIAGRAM)					
626-0144					

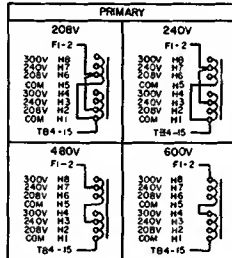
SCHEMATIC DIAGRAM



NOTES:
1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED

2. 2 WIRE START ON AT C & AT O CONNECT TO B+ GND & RMT
3. WIRE START ON AT E CONNECT TO B+ 1, 2 & 3 (PLUS H ON DIESELS)
4. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, K3 R1-2, 3 BETWEEN T1-X2 & R1-2 (AT O & AT E)
FOR 24V BATTERY CONNECT WIRE MARKED T1-K2, K3 R1-2, 3 BETWEEN T1-K3 & R1-3 (AT C)
5. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN T81-4 & 5
6. REMOVE JUMPER BETWEEN T84-7 & 9
7. REMOVE JUMPER BETWEEN T84-S & 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
9. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
11. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
12. 2 TO 3 WIRE CONVERTER (AT E ONLY)
THE SELECTOR SW HAS THREE POSITIONS:
STOP - STOPS PLANT PREVENTS STARTING. USE THIS POSITION FOR SERVICING PLANT
NORMAL - ALLOWS PLANT TO START. ASSUMES LOAD IF A LINE FAILURE OCCURS.
HAND CRANK - PREVENTS AUTOMATIC START. ALLOWS STARTING & STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
13. THIS DASHED LINE REPRESENTS A JUMPER CIRCUIT THAT MUST BYPASS A CONTACT OR CLOSE A CIRCUIT TO OPERATE WITHOUT THE REFERENCED MODULE
14. S2 IS SET IN "ON" POSITION AT FACTORY. WHEN ADDING TO RETRANSFER (MOTOR) TIMER SET S2 TO OFF POSITION
15. WHEN ADDING TO TRANSFER WITHOUT A TO RETRANSFER (MOTOR) TIMER ADD WIRE JUMPER BETWEEN TERMINAL 1 & 6 ON THE TO TRANSFER BOARD
16. WIRE TRANSFORMERS T2, 3, 4 & 5 AS FOLLOWS
FOR 208V CONNECT
T2-1 TO T3-9
T2-7 TO T3-10
T2-11 TO T3-11
T2-12 TO T3-12
FOR 240V CONNECT
T2-1 TO T2-4
T2-7 TO T2-10
T2-11 TO T2-11
T2-12 TO T2-12
FOR 480V CONNECT
T2-1 TO T2-5
T2-7 TO T2-5
T2-11 TO T2-11
T2-12 TO T2-12
FOR 600V CONNECT
T2-1 TO T2-6
T2-7 TO T2-6
T2-11 TO T2-11
T2-12 TO T2-12
17. WIRING DIAGRAM SHOWS CIRCUIT AS IF ALL ADDED PACKAGES WERE INSTALLED, PLUS IT SHOWS JUMPERS REQUIRED WHEN THEY ARE NOT INSTALLED
18. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER T81-6 & 7
19. OVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL 53 IN REMOTE ANNUNCIATOR
20. WIRE T1 TRANSFORMER AS FOLLOWS:

21. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN T83-9 & 11



626-0145

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0927	B 2	BYPASS PLUG - UNDER VOLTAGE
			SET S1 & S2 ON OR OFF
A4	300-0780	C 2	UNDER VOLTAGE SENSOR (LINE)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT O & E)
	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A6	300-0937	B 1	MODULE - BLANK (SPARE)
	300-0783	C 1	BATTERY CHARGER - 2 AMP (AT O & E)
A7	300-1177	B 1	BATTERY CHARGER - 2 AMP (AT C)
			SET S1 ON OR S2 OFF
	300-0921	C 1	TO START - STOP 12V (AT O & E)
	300-0922	C 1	TO START - STOP 24V (AT C)
			0.5 SEC TO 10 SEC DELAY ON START
			0.5 SEC TO 5 MIN DELAY ON STOP
A8	300-0927	B 1	BYPASS PLUG - TRANSFER
			SET S1 ON & S2 (SEE NOTE 4)
	300-0924	C 1	TO TRANSFER (SEE NOTE 15)
			0.5 SEC TO 10 SEC DELAY
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & O)
	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B 1	MODULE - BLANK (SPARE)
	300-0780	C 1	BATTERY VOLTAGE SENSOR (AT D & E)
	300-0781	C 1	BATTERY VOLTAGE SENSOR (AT C)
A11,12	300-0937	B 2	MODULE - BLANK (SPARE)
	307-1193	B 1	ASSY - RETRANSFER 120V 50/60Hz
A13,14,15	300-0937	B 3	MODULE - BLANK (SPARE)
	300-0780	C 1	OVER VOLTAGE SENSOR (LINE)
	300-0780	C 3	OVER VOLTAGE SENSOR (LINE)
A16	300-0937	B 1	MODULE - BLANK (SPARE)
	300-1072	C 1	MODULE - TO PREHEAT
A17,18	300-0937	B 2	MODULE - BLANK (SPARE)
A19	300-1134	C 1	PANEL ASSY - SWINGING
F1	321-0180	P 1	FUSE - 1 AMP 600V
	321-0178	P 1	FUSE - HOLDER
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY - TIME & RETRANSFER 12V
K6	307-1058	B 1	RELAY - OVER VOLTAGE LINE 12V
M1	301-3487	A 1	PLATE - CLOCK COVER
	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 50Hz
	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60Hz
P1	323-0901	A 1	PLUG - LINE DISCONNECT
R1	338-0046	A 1	RESISTOR - 6 OHM 2.50W TAP TSW
S1	308-0321	P 1	SWITCH - TEST TRANSFER
S2	308-0321	P 1	SWITCH - SELECTOR
S3	308-0321	P 1	SWITCH - MANUAL & AUTO
S4	308-0175	A 1	SWITCH - RETRANSFER
T1	318-0379	B 1	TRANSFORMER - BATTERY CHARGER
T2-5	315-0374	C 2	TRANSFORMER ASSY - STEPDOWN
T81	332-1899	A 1	MARKER STRIP
T82	332-1516	A 1	MARKER STRIP
T86	332-1469	A 1	MARKER STRIP
	338-0777	E 1	HARNES - MAIN
	338-0664	C 1	HARNES - RETRANSFER
	338-0657	C 1	HARNES - OVER V
	338-0658	C 1	HARNES - BAT V
	338-0677	C 1	HARNES - MOTOR TIMER
	338-0770	C 1	HARNES - TO PREHEAT
	332-1275	- 3	PLUG - KETING
	323-0814	P 16	GUIDES - PC BOARD
	307-1157	P 2	SPRING - RELAY HOLD-DOWN

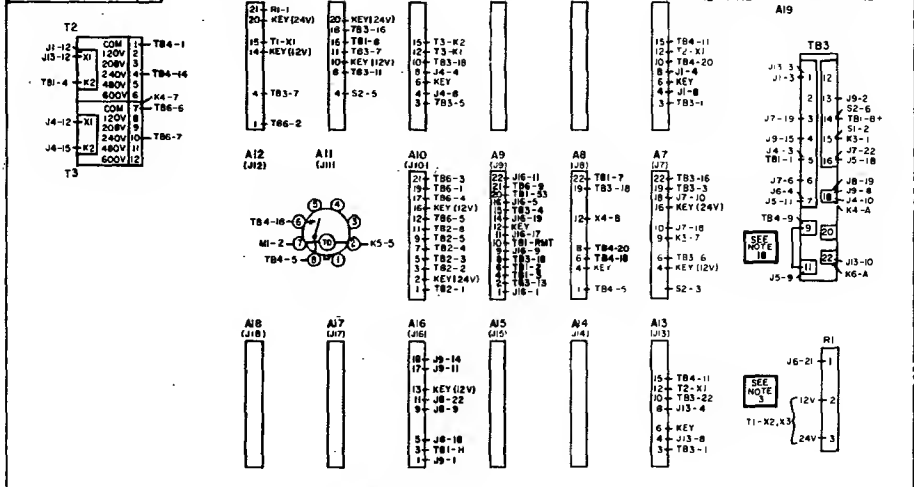
CONTROL ACCESSORY GROUP - 15

- STANDARD
1 UNDER VOLTAGE SENSOR (LINE)
1 UNDER VOLTAGE SENSOR (GEN)
2 TO 3 WIRE CONVERTER (AT E ONLY)
NORMAL - TEST SWITCH
WITH/LOAD - WITHOUT LOAD SW
MANUAL PUSH TO RETRANSFER
BATTERY CHARGER MODULE
2 UNDER VOLT SENSOR (LINE)
3 OVER VOLTAGE SENSORS (LINE)
TO START STOP
TO RETRANSFER (MOTOR)
TO TRANSFER
TO PREHEAT
BATTERY VOLTAGE SENSORS
WIRE-IN-PACKAGE'S
EXERCISER CLOCK

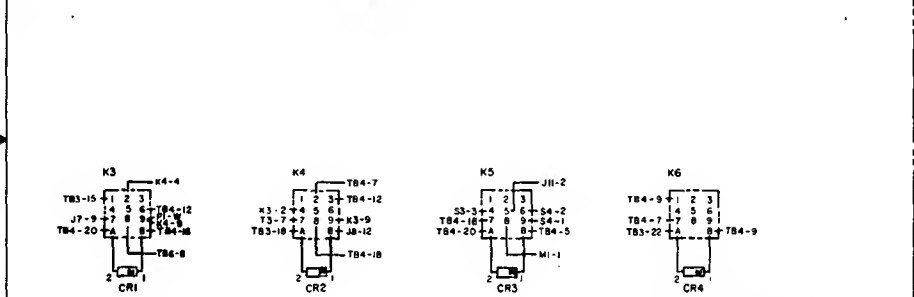
REV	DATE	BY	CHKD	DATE
01	3-29-74	CDP		
02				
03				
DIVISION OF WEA CORPORATION HONOLULU, HAWAII 208,240,480,600V. 3PH., 50/60Hz				
626-0145				

626-0146

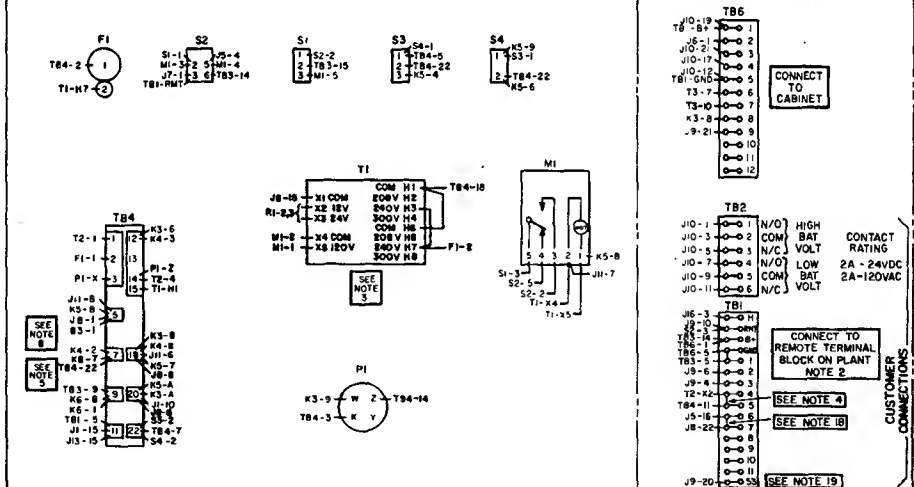
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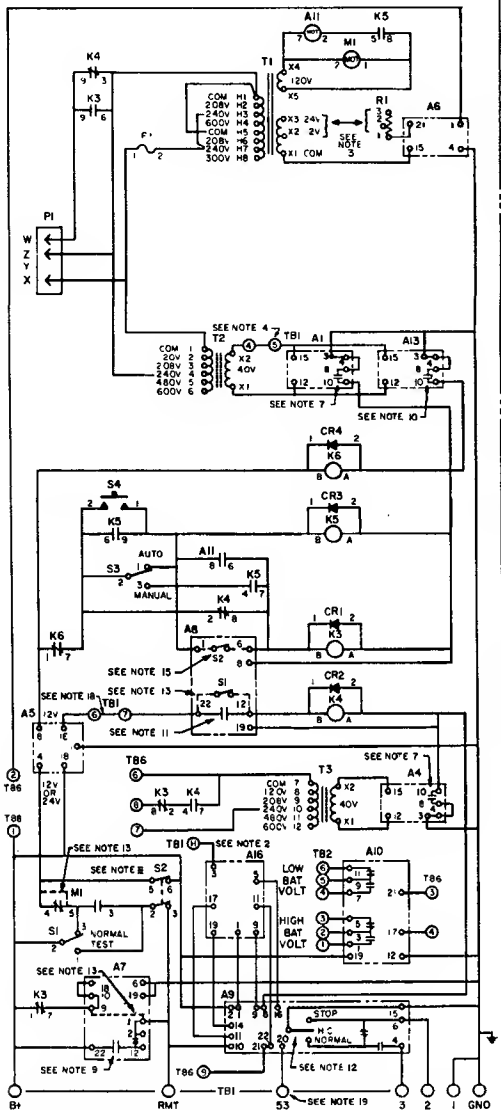
BOTTOM VIEW OF BRACKET



RIGHT SIDE OF CABINET



SCHEMATIC DIAGRAM



- NOTES:
1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
 2. WIRE START ON AT C & AT D CONNECT TO B+ GND & RMT
 3. WIRE START ON AT E CONNECT TO B+, 1, 2 & 3 (PLUS H ON DIESELS)
 4. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X2 & R1-2 (AT OE) FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 BETWEEN T1-X3 & R1-3 (AT C)
 5. TO ADD AREA PROTECTION EQUIPMENT OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TBI-4 & 5
 6. REMOVE JUMPER BETWEEN TBI-4 & 5
 7. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSES WHEN VOLTAGE IS NORMAL (A1, A2, A3, & A4)

8. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
- 9.1. WITH LOAD-PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
- 9.2. WITHOUT LOAD-PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSES AFTER A 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING WHEN VOLTAGE GOES ABOVE NORMAL (A1, A4 & A15)
12. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSING AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
- 12.1. 2 TO 3 WIRE CONVERTER (AT E ONLY) THE SELECTOR SW HAS THREE POSITIONS: STOP --- STOPS PLANT. PREVENTS STARTING. USE THIS POSITION FOR SERVICING PLANT
- 12.2. NORMAL --- ALLOWS PLANT TO START. ASSUMES LOAD IF A LINE FAILURE OCCURS. HANO CRANK---PREVENTS AUTOMATIC START. ALLOWS STARTING & STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
13. THIS DASHED LINE REPRESENTS A JUMPER CIRCUIT THAT MUST BYPASS A CONTACT OR CLOSE A CIRCUIT TO OPERATE WITHOUT THE REFERENCED MODULE
14. S2 IS SET IN "ON" POSITION AT FACTORY. WHEN ADDING TO RETRANSFER (MOTOR) TIMER SET S2 TO OFF POSITION
15. WHEN ADDING TO TRANSFER WITHOUT A TO RETRANSFER (MOTOR) TIMER ADD WIRE JUMPER BETWEEN TERMINAL 1 & 5 ON THE TO TRANSFER BOARD
16. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TBI-9 & 11.
17. WIRING DIAGRAM SHOWS CIRCUIT AS IF ALL ADDER PACKAGES WERE INSTALLED, PLUS IT SHOWS JUMPERS REQUIRED WHEN THEY ARE NOT INSTALLED
18. TO ADD PARALLELING SWITCH BOARD TRANSFER INHIBIT CIRCUIT, REMOVE JUMPER TBI-6 & 7
19. OVERCRANK SIGNAL ON AT E ONLY. CONNECT TO TERMINAL 53 IN REMOTE ANNUNCIATOR

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B 2	MODULE-BLANK (SPARE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B 1	MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0937	B 1	MODULE-BLANK (SPARE)
A8	300-0794	C 1	BATTERY CHARGER-2 AMP (AT D & E)
A9	300-1177	B 1	BYPASS PLUG-START STOP
A10	300-0921	C 1	TO START-STOP 12V (AT D & E)
A11	300-0922	C 1	TO START-STOP 24V (AT C)
A12	300-0927	B 1	TO START-STOP 10 SEC DELAY ON START
A13	300-0924	C 1	TO START-STOP 0.5 SEC TO 10 SEC DELAY ON STOP
A14	300-0927	B 1	BYPASS PLUG-TRANSFER
A15	300-0924	C 1	TO TRANSFER (SEE NOTE 15)
A16	300-0937	B 1	MODULE-BLANK (SPARE) (AT C & D)
A17	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A18	300-0937	B 1	MODULE-BLANK (SPARE)
A19	300-0794	C 1	BATTERY CHARGER-2 AMP (AT D & E)
A20	300-0794	C 1	BATTERY CHARGER-2 AMP (AT D & E)
A21	300-0937	B 2	MODULE-BLANK (SPARE)
A22	307-1199	B 1	ASSY-RETRANSFER 120V 50/60Hz
A23	300-0937	B 1	MODULE-BLANK (SPARE)
A24	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A25	300-0937	B 2	MODULE-BLANK (SPARE)
A26	300-0937	B 2	MODULE-BLANK (SPARE)
A27	300-1072	C 1	MODULE-TO PREHEAT
A28	300-0937	B 2	MODULE-BLANK (SPARE)
A29	300-1133	C 1	PANEL ASSY-SWINGING
F1	321-0180	P 1	FUSE-1 AMP 600V
F2	321-0179	P 1	FUSE-HOLDER
K3	307-1058	B 1	RELAY-INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY-INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY-TIME & RETRANSFER 12V
K6	307-1058	B 1	RELAY-OVER VOLTAGE LINE 12V
M1	301-3487	A 1	PLATE-CLOCK COVER
M2	307-1104	B 1	CLOCK-PLANT EXERCISER 120V 50Hz
M3	307-1102	B 1	CLOCK-PLANT EXERCISER 120V 60Hz
P1	323-0901	A 1	PLUG-LINE DISCONNECT
R1	353-0046	A 1	RESISTOR-6 OHM 2.5 OHM TAP 75W
S1	308-0321	P 1	SWITCH-TEST TRANSFER
S2	308-0322	P 1	SWITCH-SELECTOR
S3	308-0321	P 1	SWITCH-MANUAL & AUTO
S4	308-0175	A 1	SWITCH-RETRANSFER
T1	315-0379	B 1	TRANSFORMER-BATTERY CHARGER
T2,3	315-0374	C 1	TRANSFORMER ASSY-STEPDOWN
TBI	332-1699	A 1	MARKER STRIP
TB2	332-1516	A 1	MARKER STRIP
TB6	332-1469	A 1	MARKER STRIP
TBI	338-0770	E 1	HARNES-MAIN
TBI	338-0664	C 1	HARNES-RETRANSFER
TBI	338-0668	O 1	HARNES-OVER V
TBI	338-0658	C 1	HARNES-BAT V
TBI	338-0677	C 1	HARNES-MOTOR TIMER
TBI	338-0770	C 1	HARNES-TO PREHEAT
TBI	332-1279	3	PLUG-KEYING
TBI	323-0814	P 14	GUIDES-PC BOARD
TBI	307-1157	P 2	SPRING-RELAY HOLD-DOWN

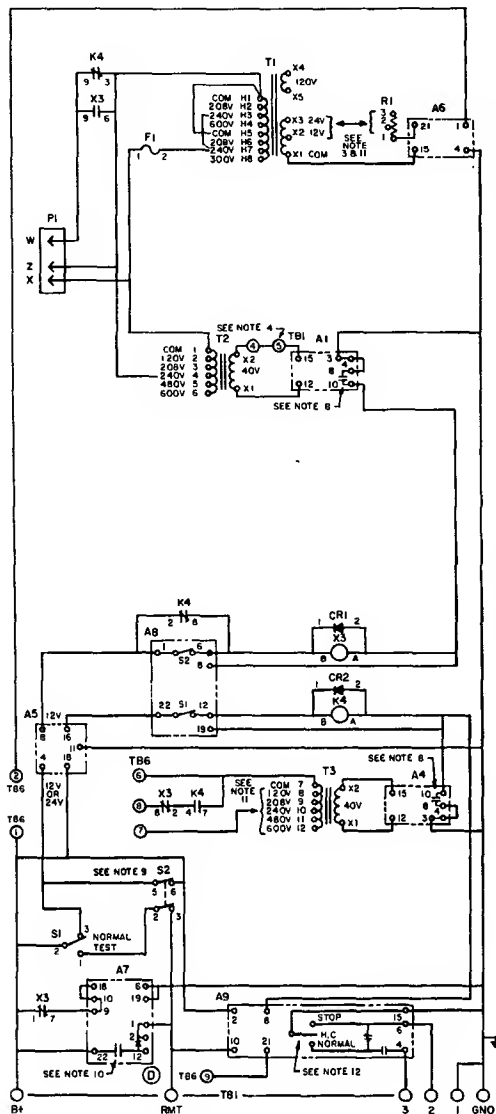
CONTROL ACCESSORY GROUP 15

- STANDARD
- 1 UNDER VOLTAGE SENSOR (LINE)
 - 1 UNDER VOLTAGE SENSOR (GEN)
 - 2 TO 3 WIRE CONVERTER (AT E ONLY)
 - NORMAL-TEST SWITCH
 - WITH LOAD-WITHOUT LOAD SW
 - MANUAL PUSH TO RETRANSFER
 - PLUG-IN MODULE PACKAGES
 - BATTERY CHARGER MODULE
 - 2 UNDER VOLT SENSOR (LINE)
 - 1 OVER VOLTAGE SENSOR (LINE)
 - TO START STOP
 - TO RETRANSFER (MOTOR)
 - TO TRANSFER
 - TO PREHEAT
 - BATTERY VOLTAGE SENSORS
 - WIRE-IN-PACKAGE'S EXERCISER CLOCK

626-0146

REV	DATE	BY	CHKD	DATE
01	4-25-74	RMS		
02				
03				
<p>208,240,480,600V, 1PH, 50/60Hz</p>				
<p>626-0146</p>				

SCHEMATIC DIAGRAM



NOTES

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START DN AT C B AT D CONNECT TO B+, GND & RMT
3. WIRE START DN AT E CONNECT TO B+, GND & RMT
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB4-7 & 9
5. TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
6. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 & 10
7. TO ADD PUSH TO RETRANSFER (MDTOR TIMER) REMOVE JUMPER BETWEEN TB4-5 & 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES WHEN VOLTAGE IS NORMAL (AT & A4)
9. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 9.1. WITH LOAD- PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD- PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSSES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. FOR 12V BATTERY CHARGING CONNECT RI-2,3 TO TI-X2 (AT D & E) FOR 24V BATTERY CHARGING CONNECT RI-2,3 TO TI-X3 (AT C)
12. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP-----SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL-----ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK-----PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B 2	MODULE-BLANK (SPARE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0047	B 1	MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B 1	MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0793	C 1	BATTERY CHARGER-2 AMP (AT D & E)
A8	300-0794	C 1	BATTERY CHARGER-2 AMP (AT C)
A9	300-0921	C 1	TO START STOP 12V (AT D & E)
A10	300-0922	C 1	TO START STOP 24V (AT C)
A11	300-0927	B 1	0.5 SEC TO 10 SEC DELAY ON START
A12	300-0927	B 1	0.5 SEC TO 5 MIN DELAY DN STOP
A13	300-0927	B 1	BYPASS PLS-TRANSFER
A14	300-0937	B 1	SET S1 ON & S2 ON
A15	300-0937	B 1	MODULE-BLANK (SPARE) (AT C & D)
A16	300-0937	B 3	MODULE-BLANK (SPARE) (AT E)
A17	300-0937	B 3	MODULE-BLANK (SPARE)
A18	300-0937	B 3	MODULE-BLANK (SPARE)
A19	300-0937	B 3	MODULE-BLANK (SPARE)
A20	300-0937	B 3	MODULE-BLANK (SPARE)
A21	300-0937	B 3	MODULE-BLANK (SPARE)
A22	300-0937	B 3	MODULE-BLANK (SPARE)
A23	300-0937	B 3	MODULE-BLANK (SPARE)
A24	300-0937	B 3	MODULE-BLANK (SPARE)
A25	300-0937	B 3	MODULE-BLANK (SPARE)
A26	300-0937	B 3	MODULE-BLANK (SPARE)
A27	300-0937	B 3	MODULE-BLANK (SPARE)
A28	300-0937	B 3	MODULE-BLANK (SPARE)
A29	300-0937	B 3	MODULE-BLANK (SPARE)
A30	300-0937	B 3	MODULE-BLANK (SPARE)
A31	300-0937	B 3	MODULE-BLANK (SPARE)
A32	300-0937	B 3	MODULE-BLANK (SPARE)
A33	300-0937	B 3	MODULE-BLANK (SPARE)
A34	300-0937	B 3	MODULE-BLANK (SPARE)
A35	300-0937	B 3	MODULE-BLANK (SPARE)
A36	300-0937	B 3	MODULE-BLANK (SPARE)
A37	300-0937	B 3	MODULE-BLANK (SPARE)
A38	300-0937	B 3	MODULE-BLANK (SPARE)
A39	300-0937	B 3	MODULE-BLANK (SPARE)
A40	300-0937	B 3	MODULE-BLANK (SPARE)
A41	300-0937	B 3	MODULE-BLANK (SPARE)
A42	300-0937	B 3	MODULE-BLANK (SPARE)
A43	300-0937	B 3	MODULE-BLANK (SPARE)
A44	300-0937	B 3	MODULE-BLANK (SPARE)
A45	300-0937	B 3	MODULE-BLANK (SPARE)
A46	300-0937	B 3	MODULE-BLANK (SPARE)
A47	300-0937	B 3	MODULE-BLANK (SPARE)
A48	300-0937	B 3	MODULE-BLANK (SPARE)
A49	300-0937	B 3	MODULE-BLANK (SPARE)
A50	300-0937	B 3	MODULE-BLANK (SPARE)
A51	300-0937	B 3	MODULE-BLANK (SPARE)
A52	300-0937	B 3	MODULE-BLANK (SPARE)
A53	300-0937	B 3	MODULE-BLANK (SPARE)
A54	300-0937	B 3	MODULE-BLANK (SPARE)
A55	300-0937	B 3	MODULE-BLANK (SPARE)
A56	300-0937	B 3	MODULE-BLANK (SPARE)
A57	300-0937	B 3	MODULE-BLANK (SPARE)
A58	300-0937	B 3	MODULE-BLANK (SPARE)
A59	300-0937	B 3	MODULE-BLANK (SPARE)
A60	300-0937	B 3	MODULE-BLANK (SPARE)
A61	300-0937	B 3	MODULE-BLANK (SPARE)
A62	300-0937	B 3	MODULE-BLANK (SPARE)
A63	300-0937	B 3	MODULE-BLANK (SPARE)
A64	300-0937	B 3	MODULE-BLANK (SPARE)
A65	300-0937	B 3	MODULE-BLANK (SPARE)
A66	300-0937	B 3	MODULE-BLANK (SPARE)
A67	300-0937	B 3	MODULE-BLANK (SPARE)
A68	300-0937	B 3	MODULE-BLANK (SPARE)
A69	300-0937	B 3	MODULE-BLANK (SPARE)
A70	300-0937	B 3	MODULE-BLANK (SPARE)
A71	300-0937	B 3	MODULE-BLANK (SPARE)
A72	300-0937	B 3	MODULE-BLANK (SPARE)
A73	300-0937	B 3	MODULE-BLANK (SPARE)
A74	300-0937	B 3	MODULE-BLANK (SPARE)
A75	300-0937	B 3	MODULE-BLANK (SPARE)
A76	300-0937	B 3	MODULE-BLANK (SPARE)
A77	300-0937	B 3	MODULE-BLANK (SPARE)
A78	300-0937	B 3	MODULE-BLANK (SPARE)
A79	300-0937	B 3	MODULE-BLANK (SPARE)
A80	300-0937	B 3	MODULE-BLANK (SPARE)
A81	300-0937	B 3	MODULE-BLANK (SPARE)
A82	300-0937	B 3	MODULE-BLANK (SPARE)
A83	300-0937	B 3	MODULE-BLANK (SPARE)
A84	300-0937	B 3	MODULE-BLANK (SPARE)
A85	300-0937	B 3	MODULE-BLANK (SPARE)
A86	300-0937	B 3	MODULE-BLANK (SPARE)
A87	300-0937	B 3	MODULE-BLANK (SPARE)
A88	300-0937	B 3	MODULE-BLANK (SPARE)
A89	300-0937	B 3	MODULE-BLANK (SPARE)
A90	300-0937	B 3	MODULE-BLANK (SPARE)
A91	300-0937	B 3	MODULE-BLANK (SPARE)
A92	300-0937	B 3	MODULE-BLANK (SPARE)
A93	300-0937	B 3	MODULE-BLANK (SPARE)
A94	300-0937	B 3	MODULE-BLANK (SPARE)
A95	300-0937	B 3	MODULE-BLANK (SPARE)
A96	300-0937	B 3	MODULE-BLANK (SPARE)
A97	300-0937	B 3	MODULE-BLANK (SPARE)
A98	300-0937	B 3	MODULE-BLANK (SPARE)
A99	300-0937	B 3	MODULE-BLANK (SPARE)
A100	300-0937	B 3	MODULE-BLANK (SPARE)

CONTROL ACCESSORY GROUP- II
BATTERY CHARGER MODULE
1 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD-WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)
TO START-STOP

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY
MODEL 50/60Hz
AT C -01
AT O -02
AT E -03

ITEM X4-8 TO X5-8	1	1
KIAOGE K3 TO TB4-18	1	1
J WAS K3-8	1	1
H WAS K3-8	1	1
G WAS 3.0-3.487	1	1
F WIRE WAS ON PI-Y	1	1
E REM JY-2 TO JY-12	1	1
D REM JUMPER AND DIODE	1	1
C REVERSED NOTE 3	1	1
B REM % FROM MODEL NO	1	1
A WAS AND -13	1	1

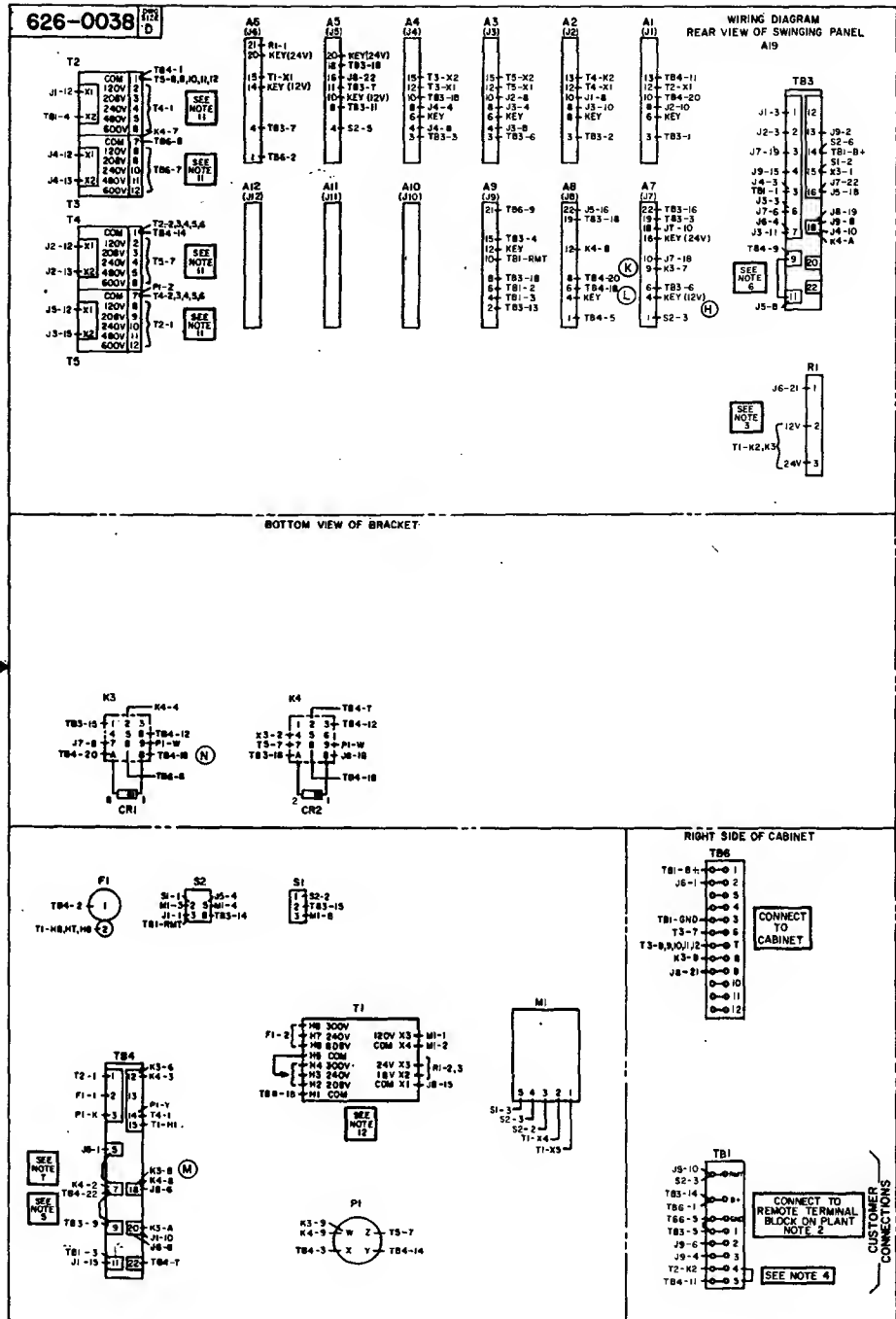
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3-30-73 JTM

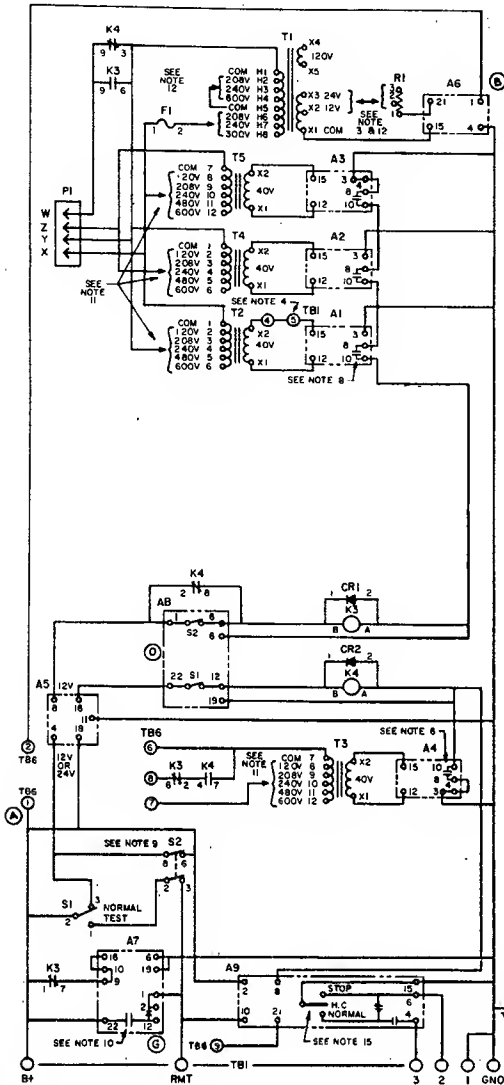
CONTROL ACCESS. PANEL (WIRING DIAGRAM)

240V, 2W, 120/240V, 3W, 1 PH, 50/60Hz

626-0037



SCHEMATIC DIAGRAM

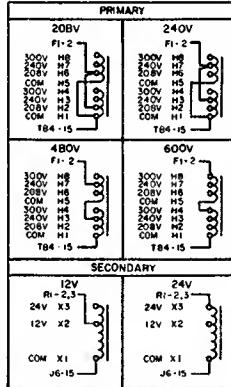


NOTES

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START ON AT C & AT D CONNECT TO B, GND & RMT
3. WIRE START ON AT E CONNECT TO B, I, 2, & 3 12V CHARGING ON AT O & ATSE 24V CHARGING ON AT C
4. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 RI-2, 3 TO RI-2
5. FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 RI-2, 3 TO RI-3
6. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TBI-4 & 5
7. TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
8. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 & 10
9. TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN TB4-5 & 7
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1, A2, A3, & A4)
11. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 9.1. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
12. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 15 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
13. WIRE TRANSFORMERS T2, 3, 4, 5 AS FOLLOWS

FOR 208V CONNECT	T4-1 TO T2-3
	TB6-7 TO T3-9
	T5-7 TO T4-3
	T2-1 TO T5-9
FOR 240V CONNECT	T4-1 TO T2-4
	TB6-7 TO T3-10
	T5-7 TO T4-4
	T2-1 TO T5-10
FOR 480V CONNECT	T4-1 TO T2-5
	TB6-7 TO T3-11
	T5-7 TO T4-5
	T2-1 TO T5-11
FOR 600V CONNECT	T4-1 TO T2-6
	T5-7 TO T4-6
	T2-1 TO T5-12

12 WIRE T1 TRANSFORMER AS FOLLOWS:



12V CHARGING ON ATSO & E 24V CHARGING ON ATSC

REF DES	PART NO	QTY	DESCRIPTION
A1, 2, 3	300-0780	C 3	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT OB E)
A6	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A7	300-0794	C 1	BATTERY CHARGER - 2 AMP 12V (AT B)
A7	300-0921	C 1	TO START-STOP 12V (AT OB E)
A7	300-0922	C 1	TO START-STOP 24V (AT C)
AB	300-0927	B 1	0.5 SEC TO 15 SEC DELAY ON START 10.5 SEC TO 5 MIN DELAY ON STOP BYPASS PLUG - TRANSFER SET S1 ON B S2 ON
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & O)
A10	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A10	300-0937	B 1	MODULE - BLANK (SPARE)
A11, 12	300-0937	B 2	MODULE - BLANK (SPARE)
A19	300-0928	C 1	PANEL ASSY - SWINGING
F1	321-0180REF	P 1	FUSE - 1 AMP 600V
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
M1	332-1484	A 1	PLATE - CLOCK COVER
P1	323-0185REF	P 1	PLUG - LINE DISCONNECT
R1	353-0046REF	P 1	RESISTOR - 6 OHM 2.5 OHM TAP 75W
S1	308-0321REF	P 1	SWITCH - TEST TRANSFER
S2	308-0322REF	P 1	SWITCH - SELECTOR
T1	315-0379REF	B 1	TRANSFORMER - BAT CHARGER
T2-5	315-0374REF	C 2	LEAD ASSY (USE ON 208V & 240V ONLY)
TBI	332-1515	A 1	TRANSFORMER ASSY - STEPDOWN
TB6	332-1469	A 1	MARKER STRIP
	338-0655REF	E 1	MARKER STRIP
			HARNESS - MAIN
	332-1879	- 9	PLUG - KEYING
	301-3503	B 1	COVER - RACK
	332-0050	- 1	CLIP - WIRE

15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY)
THE SELECTOR SWITCH HAS THREE POSITIONS:
STOP - SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

CONTROL ACCESSORY GROUP - II
BATTERY CHARGER MODULE
3 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD - WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)
TO START - STOP

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY
MODEL 50/60Hz
AT C - 01
AT D - 02
AT E - 03

N	REMOVED K4-B TO K3-B	27	1
M	ADDED K3-B TO B4-18		
L	WAS K3-B		
K	WAS K3-A		
J	WAS 301-3487		
I	REMOVED J7 TO J12		
H	REMOVED JUMPER ADD JUMPER		
G	REMOVED JUMPER		
F	REMOVED JUMPER		
E	REMOVED JUMPER		
D	ADDED S1 & S2		
C	WAS S2 OFF		
B	REMOVED 1 & 4		
A	ADDED TBI-1 TO SCHEM		

626-0038

2-1-73 JTM

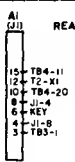
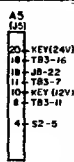
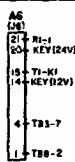
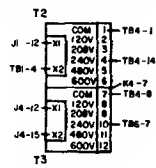
CONTROL ACCESS PANEL (WIRING DIAGRAM)

208, 240, 480, 600V, 3PH, 4W, 50/60Hz

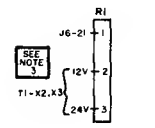
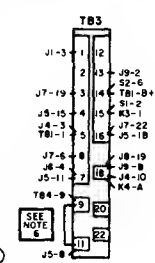
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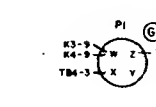
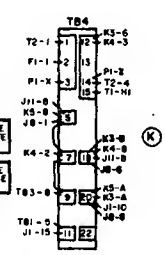
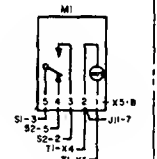
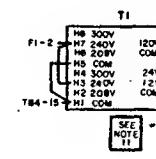
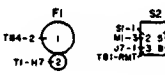
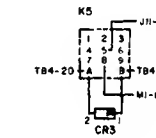
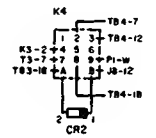
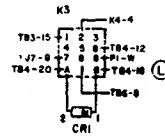
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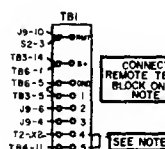
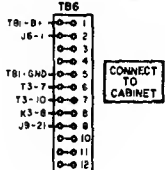
WIRING DIAGRAM
REAR VIEW OF SWINGING PANEL
A19



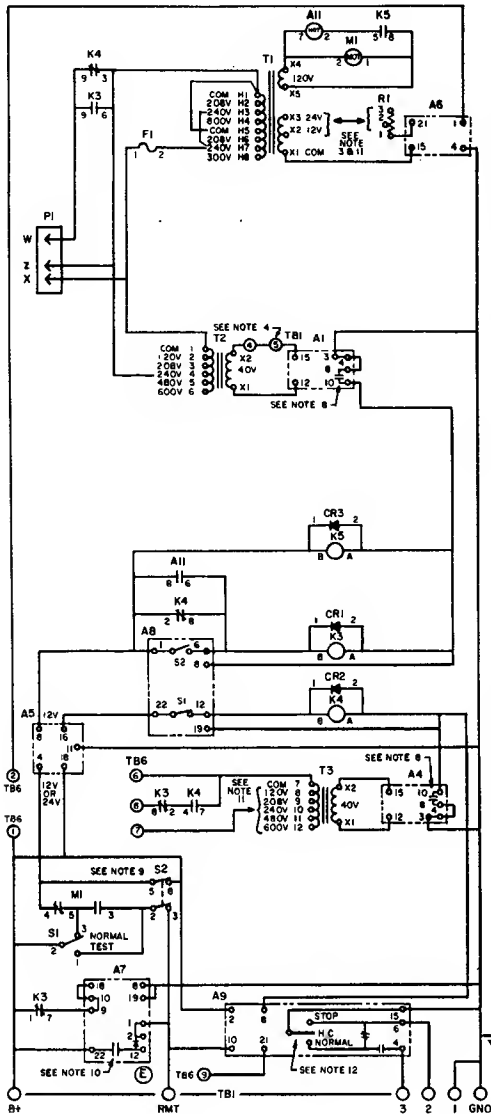
BOTTOM VIEW OF BRACKET



RIGHT SIDE OF CABINET



SCHEMATIC DIAGRAM



NOTES

- 1 ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
- 2 WIRE START ON AT C & AT D CONNECT TO B+GND & RMT 3 WIRE START ON AT E CONNECT TO B+1,2,3 12V CHARGING ON AT O & AT E 24V CHARGING ON AT C
- 3 FOR 12V BATTERY CONNECT WIRE MARKED T1-X2,X3 RI-2,3 TO RI-2 FOR 24V BATTERY CONNECT WIRE MARKED T1-X2,X3 RI-2,3 TO RI-3
- 4 TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB1-4 & 5
- 5 TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
- 6 TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 & 10
- 7 TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN TB4-5 & 7
- 8 THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (AT & A4)
- 9 TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION) TAKES OVER LOAD PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS 9.2 WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
- 10 THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
- 11 FOR 12V BATTERY CHARGING CONNECT RI-2,3 TO T1-X2 (AT O & E) FOR 24V BATTERY CHARGING CONNECT RI-2,3 TO T1-X3 (AT C)
- 12.2 TO 3 WIRE CONVERTER (USED ON AT E ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP ---- SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL ---- ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B 2	MODULE-BLANK (SPARE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B 1	MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0793	C 1	BATTERY CHARGER-2 AMP (AT O & E)
A8	300-0794	C 1	BATTERY CHARGER-2 AMP (AT C)
A9	300-0921	C 1	TO START STOP 12V (AT D & E)
A10	300-0922	C 1	TO START STOP 24V (AT C)
A11	300-0927	B 1	0.5 SEC TO 10SEC DELAY ON START 0.5 SEC TO 5 MIN DELAY ON STOP BYPASS PLUG-TRANSFER SET SI ON B S2 OFF
A12	300-0937	B 1	MODULE-BLANK (SPARE) (AT C & D)
A13	300-0937	B 1	MODULE-BLANK (SPARE) (AT E)
A14	300-0937	B 1	MODULE-BLANK (SPARE)
A15	307-1199	B 1	ASSY-RETRANSFER 120V 50/60Hz
A16	300-0930	C 1	PANEL ASSY-SWINGING FUSE-1 AMP 600V
A17	321-0780REF	P 1	FUSE-HOLDER
A18	307-1059	B 1	RELAY-INTERPOSING LINE 12V
A19	307-1058	B 1	RELAY-INTERPOSING GEN 12V
A20	307-1058	B 1	RELAY-TIMER 12V
A21	307-1104	B 1	CLOCK-PLANT EXERCISER 120V 50Hz
A22	307-1102	B 1	CLOCK-PLANT EXERCISER 120V 60Hz
A23	323-0880REF	P 1	PLUG-LINE DISCONNECT
A24	333-0046REF	A 1	RESISTOR-6 OHM 2.5 OHM TAP 75W
A25	308-0321REF	P 1	SWITCH-TEST TRANSFER
A26	308-0322REF	P 1	SWITCH-SELECTOR
A27	315-0370REF	B 1	TRANSFORMER-BAT CHARGER
A28	336-2161	A 1	LEAO ASSY
A29	315-0374REF	C 1	TRANSFORMER ASSY-STEPPDOWN
A30	332-1515	A 1	MARKER STRIP
A31	332-1469	A 1	MARKER STRIP
A32	338-0736REF	E 1	HARNES-MAIN
A33	358-0677	C 1	HARNES-MOTOR TIMER
A34	332-1279	- 7	PLUG-KEYING
A35	301-3593	B 1	COVER-RACK
A36	307-1157	P 1	SPRING-RELAY HOLDDOWN

CONTROL ACCESSORY GROUP 12

BATTERY CHARGER MODULE
 1 UNDER VOLTAGE SENSOR MODULES (LINE)
 1 UNDER VOLTAGE SENSOR MODULE (GEN)
 NORMAL - TEST SWITCH
 WITH LOAD-WITHOUT LOAD SWITCH
 2 TO 3 CONVERTER (AT E ONLY)
 EXERCISER CLOCK
 TO START-STOP

TO RETRANSFER (MOTOR)

MODEL	60 Hz	50 Hz
AT C	-01	-04
AT O	-02	-05
AT E	-03	-06

L REM K4-B TO K3-B	WAS	1
K ADDED K3-B-TB4-10	WAS	2
J WAS K3-B	WAS	1
H WAS K3-A	WAS	1
G WIRE WAS ON PLY	WAS	1
F REM J7-2 TO J7-12	WAS	1
E REM JUMPER ADDROCK	WAS	1
D REVISED NOTE 3	WAS	1
C REM'S FROM MODEL NO	WAS	1
B DELETED 307-1271	WAS	1
A WAS 60Hz ONLY	WAS	1

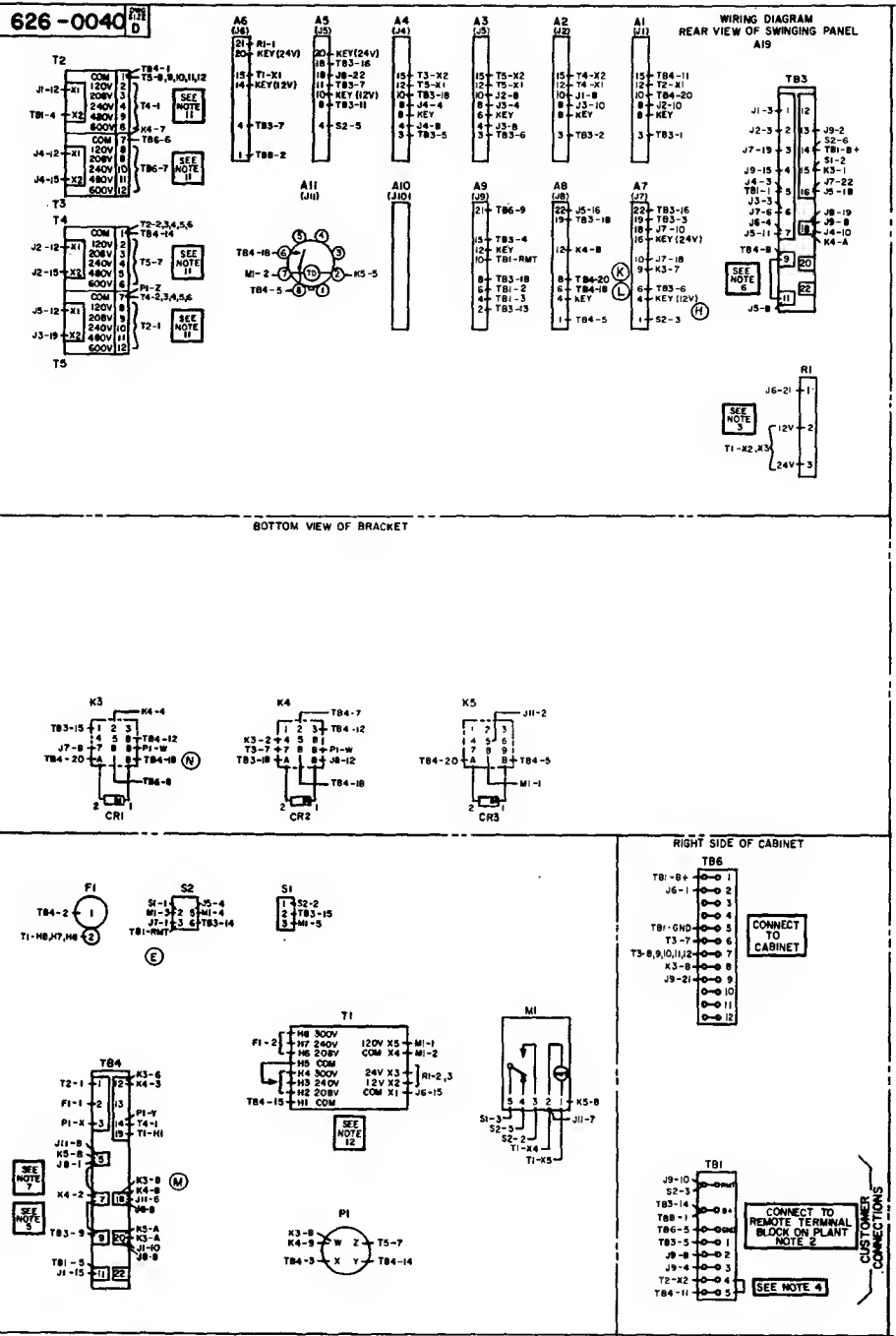
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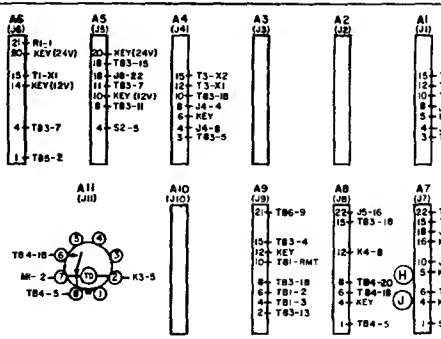
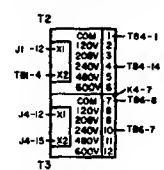
DATE 3-30-73 BY JTM

CONTROL ACCESS PANEL (WIRING DIAGRAM)

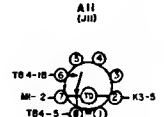
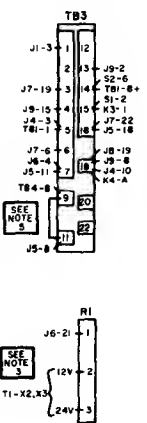
240V 2W, 120/240V, 3W 1 P.N. 50/60Hz

626-0039

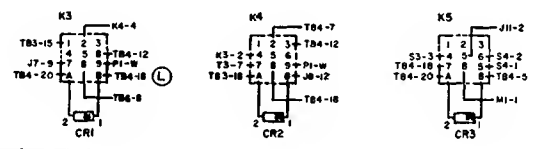




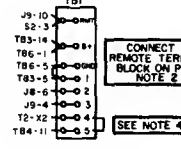
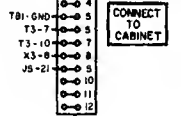
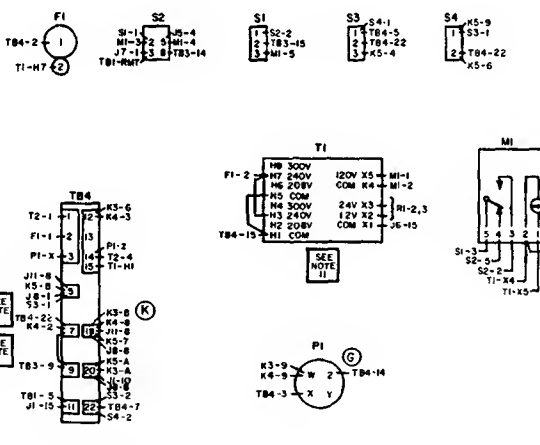
WIRING DIAGRAM
REAR VIEW OF SWINGING PANEL
A15



BOTTOM VIEW OF BRACKET

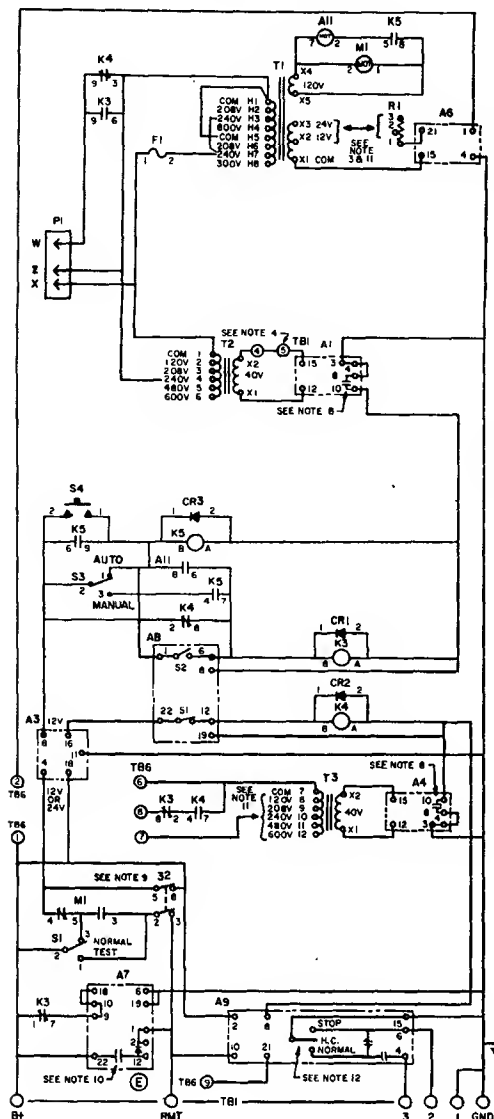


RIGHT SIDE OF CABINET



CUSTOMER CONNECTIONS

SCHEMATIC DIAGRAM



NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START ON AT C & AT O CONNECT TO B+ GND & RMT
3. WIRE START ON AT E CONNECT TO B+ 1, 2, & 3 12V CHARGING ON AT D & AT E 24V CHARGING ON AT C
3. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 TO R1-2 FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 R1-2, 3 TO R1-3
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TBI-4 & 3
5. TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB4-7 & 9
6. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 & 10
7. REMOVE JUMPER BETWEEN TB4-3 & 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1 & A4)
9. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - 3.1 WITH LOAD-PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2 WITHOUT LOAD-PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 3 MIN DELAY
11. FOR 12V BATTERY CHARGING CONNECT R1-2, 3 TO T1-X2 (AT O & E) FOR 24V BATTERY CHARGING CONNECT R1-2, 3 TO T1-X3 (AT C)
12. 2 TO 3 WIRE CONVERTER (USED ON ATSE ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP-----SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL-----ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK-----PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C	UNDER VOLTAGE SENSOR (LINE)
A2, 3	300-0937	B	MODULE-BLANK (SPARE)
A4	300-0780	C	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B	MODULE-VOLTAGE 12V (AT D & E)
A6	300-0848	B	MODULE-24V TO 12V CONVERTER (AT C)
A6	300-0933	C	BATTERY CHARGER-2 AMP (AT D & E)
A7	300-0784	C	BATTERY CHARGER-2 AMP (AT C)
A7	300-0921	C	TO START STOP 12V (AT D & E)
A7	300-0922	C	TO START STOP 24V (AT C)
AB	300-0927	B	0.3 SEC TO 10 SEC DELAY ON START
AB	300-0927	B	0.3 SEC TO 3 MIN DELAY ON STOP
A9	300-0937	B	BYPASS PLUG-TRANSFER
A9	300-0937	B	SET S1 ON & S2 OFF
A10	300-0937	B	MODULE-BLANK (SPARE) (AT C & D)
A10	300-0937	B	2 TO 3 WIRE CONVERTER (AT E)
A11	307-1199	B	MODULE-BLANK (SPARE)
A11	307-1199	B	A33Y-RETRANSFER 120V 30/60Hz
A19	300-0930	C	PANEL ASSY-SWINGING
F1	321-0800(REF)	P	FUSE-1 AMP 600V
F2	321-0789(REF)	P	FUSE-HOLDER
K3	307-1058	B	RELAY-INTERPOSING LINE 12V
K4	307-1058	B	RELAY-INTERPOSING GEN 12V
K3	307-1058	B	RELAY-TIMER 12V
M1	307-1104	B	CLOCK-PLANT EXERCISER 120V 50Hz
M1	307-1102	B	CLOCK-PLANT EXERCISER 120V 60Hz
P1	323-0800(REF)	P	PLUG-LINE DISCONNECT
R1	353-0040(REF)	A	RESISTOR-6 OHM 2.5 OHM TAP 75W
S1	306-0321(REF)	P	SWITCH-TEST TRANSFER
S2	306-0322(REF)	P	SWITCH-SELECTOR
S3	306-0321	P	SWITCH-MANUAL & AUTO
S4	306-0173	A	SWITCH-RETRANSFER
T1	315-0375(REF)	B	TRANSFORMER-BAT CHARGER
T2, 3	315-0374(REF)	C	LEAD ASSY
T2, 3	315-0374(REF)	C	TRANSFORMER ASSY-STEPPDOWN
T81	332-1915	A	MARKER STRIP
T86	332-1469	A	MARKER STRIP
T86	338-0736(REF)	E	HARNES-MAIN
T86	338-0664	C	HARNES-RETRANSFER
T86	338-0877	C	HARNES-MOTOR TIMER
T86	332-1279	-	7 PLUG-REYING
T86	301-3593	B	COVER-RACK
T86	307-1137	P	SPRING-RELAY HOLOGOON

CONTROL ACCESSORY GROUP 13

BATTERY CHARGER MODULE
 1 UNDER VOLTAGE SENSOR MODULES (LINE)
 1 UNDER VOLTAGE SENSOR MODULE (GEN)
 NORMAL-TEST SWITCH
 WITHN LOAD-WITHOUT LOAD SWITCH
 2 TO 3 CONVERTER (AT E ONLY)
 EXERCISER CLOCK
 TO START-STOP
 PUSH TO RETRANSFER SWITCH
 AUTO-MANUAL RETRANSFER SWITCH

TO RETRANSFER (MOTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
MODEL	50 Hz	50 Hz	
AT C	-01	-04	
AT O	-02	-05	
AT E	-03	-06	

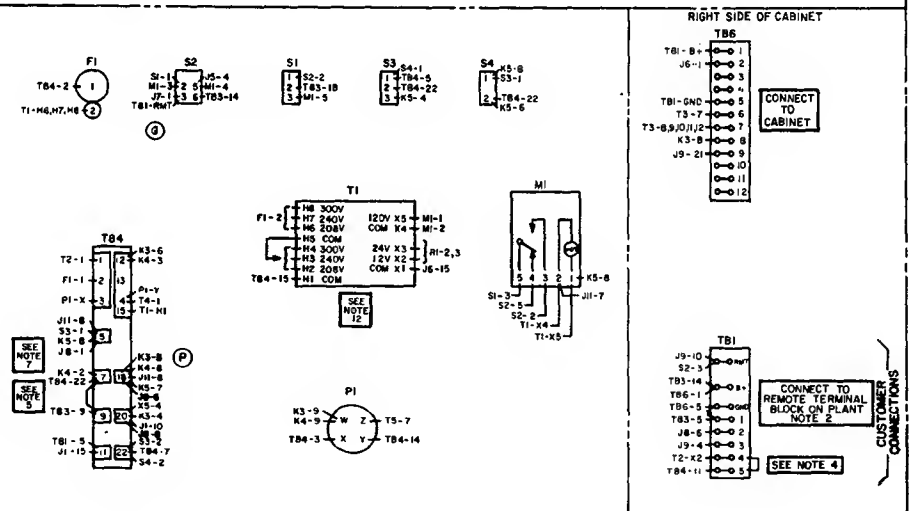
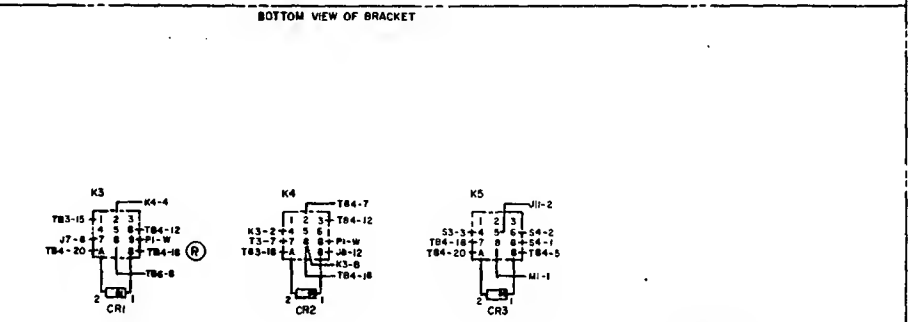
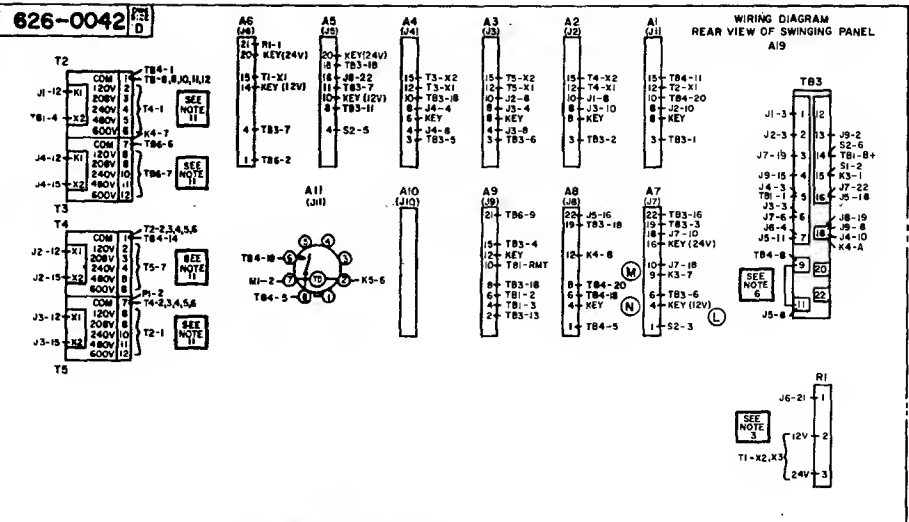
3-30-73 JTM

AT C } 3PEC A
 AT D }
 AT E }

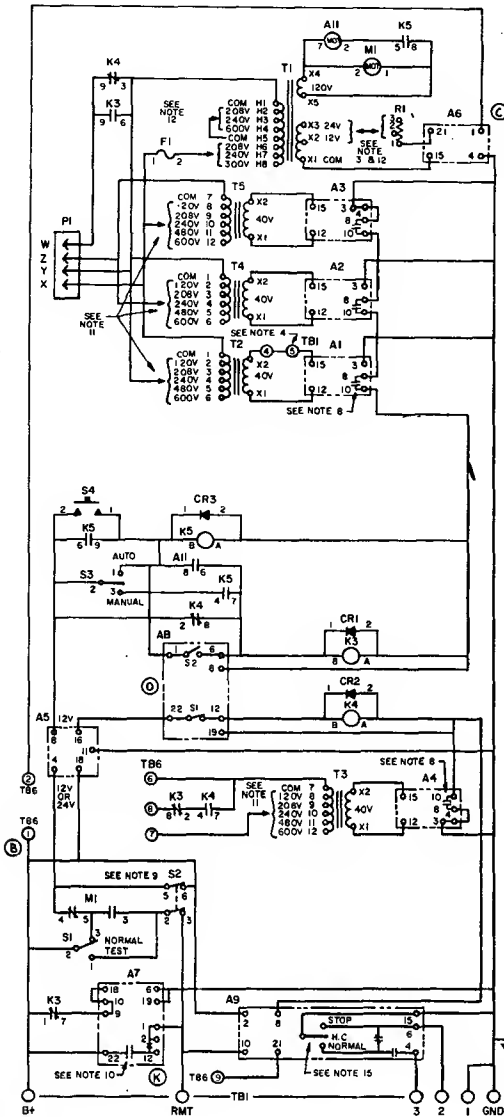
240V, 2W, 120/240V, 50/60Hz

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626-0042



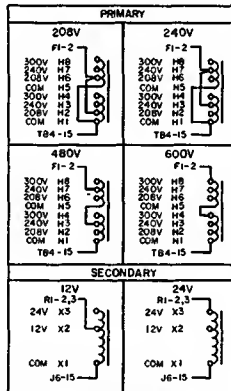
SCHEMATIC DIAGRAM



- NOTES:**
- ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
 - WIRE START ON AT C & AT O CONNECT TO B+, GND & RMT
 - WIRE START ON AT E CONNECT TO B+, 12V, & 3 12V CHARGING ON AT D & AT E 24V CHARGING ON AT C
 - FOR 12V BATTERY CHARGE WIRE MARKED T1-X2, X3 RI-2, 3 TO RI-2 FOR 24V BATTERY CHARGE WIRE MARKED T1-X2, X3 RI-2, 3 TO RI-3
 - TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB4-7 & 9
 - TO ADD OVER-VOLTAGE SENSING, REMOVE JUMPER BETWEEN TB3-9 & 10
 - REMOVE JUMPER BETWEEN TB4-5 & 7
 - THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1, A2, A3, & A4)
 - TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 - WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
 - THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 15 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
 - WIRE TRANSFORMERS T2, 3, 4 & 5 AS FOLLOWS

FOR 208V CONNECT	T4-1 TO T2-3	T6-7 TO T3-9	T5-7 TO T4-3	T2-1 TO T5-9
FOR 240V CONNECT	T4-1 TO T2-4 <td>T6-7 TO T3-10 <td>T5-7 TO T4-4 <td>T2-1 TO T5-10 </td></td></td>	T6-7 TO T3-10 <td>T5-7 TO T4-4 <td>T2-1 TO T5-10 </td></td>	T5-7 TO T4-4 <td>T2-1 TO T5-10 </td>	T2-1 TO T5-10
FOR 480V CONNECT	T4-1 TO T2-5 <td>T6-7 TO T3-11 <td>T5-7 TO T4-5 <td>T2-1 TO T5-11 </td></td></td>	T6-7 TO T3-11 <td>T5-7 TO T4-5 <td>T2-1 TO T5-11 </td></td>	T5-7 TO T4-5 <td>T2-1 TO T5-11 </td>	T2-1 TO T5-11
FOR 600V CONNECT	T4-1 TO T2-6 <td>T6-7 TO T3-12 <td>T5-7 TO T4-6 <td>T2-1 TO T5-12 </td></td></td>	T6-7 TO T3-12 <td>T5-7 TO T4-6 <td>T2-1 TO T5-12 </td></td>	T5-7 TO T4-6 <td>T2-1 TO T5-12 </td>	T2-1 TO T5-12

12. WIRE T1 TRANSFORMER AS FOLLOWS:



12V CHARGING ON ATSO & E 24V CHARGING ON ATSC

REF DES	PART NO	QTY	DESCRIPTION
A1, 2, 3	300-0780	C 3	UNDER VOLTAGE SENSOR (LINE)
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B 1	MODULE - VOLTAGE 12V (AT D & E)
	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A6	300-0793	C 1	BATTERY CHARGER - 2 AMP 12V (AT D & E)
A7	300-0921	C 1	TO START - STOP 12V (AT D & E)
	300-0922	C 1	TO START - STOP 24V (AT C)
			0.5 SEC TO 15 SEC DELAY ON START
			0.5 SEC TO 5 MIN DELAY ON STOP
AB	300-0927	B 1	BYPASS PLUG - TRANSFER SET S1 ON S2 OFF
A9	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & D)
A10	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
	300-0937	B 1	MODULE - BLANK (SPARE)
A11	307-1199	B 1	ASSY - RETRANSFER 120V 50/60Hz
A19	300-0928	C 1	PANEL ASSY - SWINGING
F1	321-0180(REF)	P 1	FUSE - 1 AMP 600V
K3	307-1058	B 1	RELAY - INTERPOSING LINE 12V
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V
K5	307-1058	B 1	RELAY - TIMER & RETRANSFER 12V
M1	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 50Hz
	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60Hz
P1	323-0185(REF)	P 1	PLUG - LINE DISCONNECT
R1	353-0046(REF)	A 1	RESISTOR - 6 OHM 2.5 OHM TAP 75W
S1	308-0320(REF)	P 1	SWITCH - TEST TRANSFER
S2	308-0322(REF)	P 1	SWITCH - SELECTOR
S3	308-0321	P 1	SWITCH - MANUAL & AUTO
S4	308-0175	A 1	SWITCH - RETRANSFER
	98-2467	A 1	51K SCREEN - RETRANSFER
T1	305-0370(REF)	B 1	TRANSFORMER - BAT CHARGER
	335-0261	A 1	LEAD ASSY (USE ON 208V & 240V ONLY)
T2-3	315-0374(REF)	C 2	TRANSFORMER ASSY - STEPDOWN
TBI	332-1515	A 1	MARKER STRIP
TB6	332-1469	A 1	MARKER STRIP
	338-0655(REF)	E 1	HARNESS - MAIN
	338-0664	C 1	HARNESS - RETRANSFER
	338-0677	C 1	HARNESS - MOTOR TIMER
	332-1275	- 8	PLUG - KEYING
	301-3593	B 1	COVER - RACK
	332-0050	- 1	CLIP - WIRE

15. 2 TO 3 WIRE CONVERTER (USED ON AT E ONLY)
THE SELECTOR SWITCH HAS THREE POSITIONS:
STOP - SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

CONTROL ACCESSORY GROUP 13
BATTERY CHARGER MODULE
3 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD - WITHOUT LOAD SWITCH
2 TO 3 CONVERTER (AT E ONLY)
EXERCISER CLOCK
TO START - STOP
TO RETRANSFER (MOTOR)
PUSH TO RETRANSFER SWITCH
AUTO - MANUAL RETRANSFER SW.

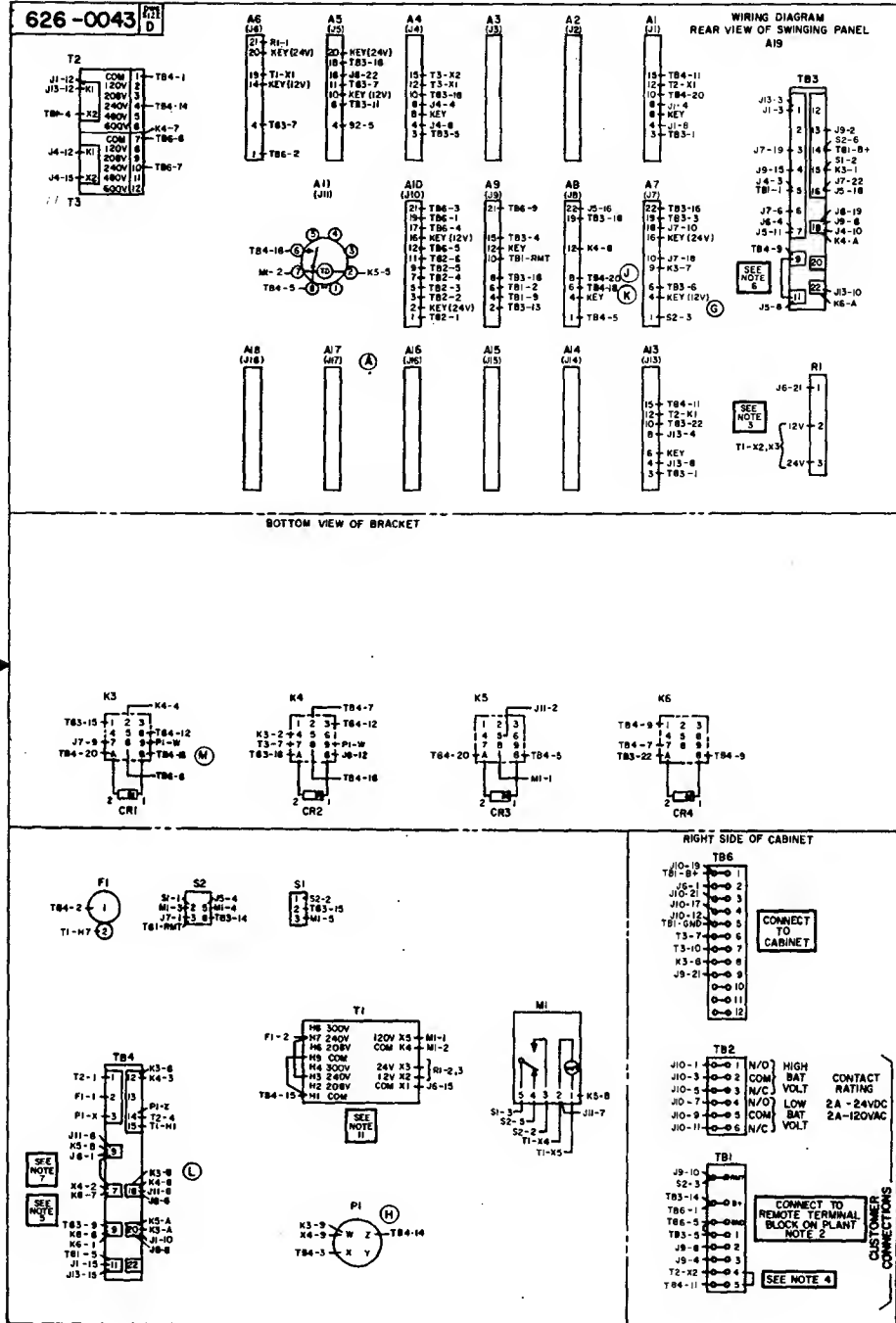
MODEL	60 Hz	50 Hz
AT C	-01	-04
AT O	-02	-05
AT E	-03	-06

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

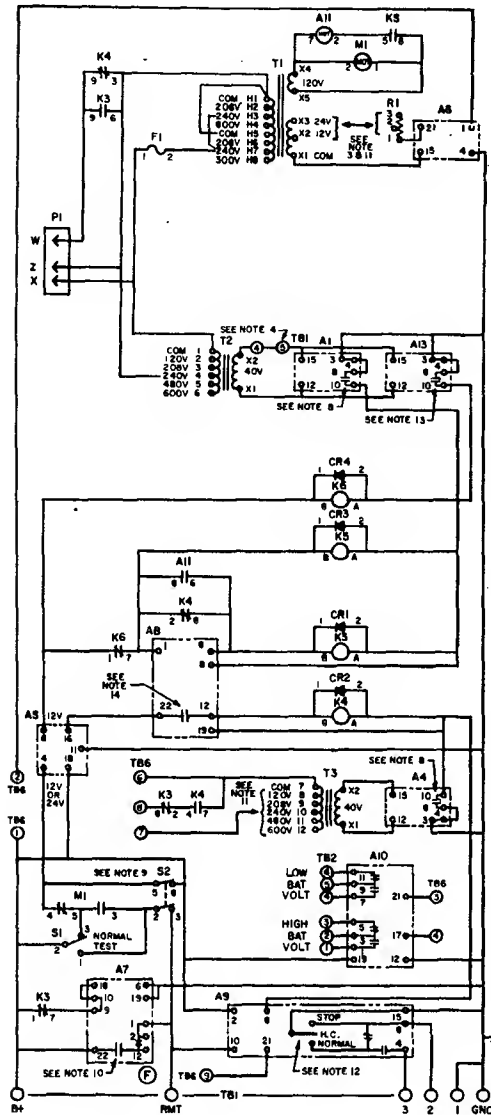
AT C	AT O	AT E
208, 240, 480, 600V, 3PH, 4W, 50/60Hz		

626-0042

626-0043



SCHEMATIC DIAGRAM



NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. 2 WIRE START ON AT C 8 AT O CONNECT TO B+, GND 8 RMT
3. 3 WIRE START ON AT E CONNECT TO B+, I, 2, 3 12V CHARGING ON AT O 8 AT E 24V CHARGING ON AT C
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN T81 - 4 8 5
5. REMOVE JUMPER BETWEEN T84 - 7 8 9
6. TO ADD OVER 8 UNDER FRED SENSING, REMOVE JUMPER BETWEEN T83 - 9 8 10
7. TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN T84 - 5 8 7
8. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1 8 A4)
9. TEST OR EXERCISE IS2 SHOWN IN WITHOUT LOAD POSITION
 - 9.1. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 - 9.2. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
11. FOR 12V BATTERY CHARGING CONNECT R1-2,3 TO T1-X2 (AT O 8 E) FOR 24V BATTERY CHARGING CONNECT R1-2,3 TO T1-X3 (AT C)
12. 2 TO 3 WIRE CONVERTER (USED ON ATSE ONLY) THE SELECTOR SWITCH HAS THREE POSITIONS:
 - STOP - SNUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
 - NORMAL - ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
 - HAND CRANK - PREVENTS AUTOMATIC PLANT STARTING BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
13. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE GOES ABOVE NORMAL (A13)
14. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-0937	B	MODULE-BLANK (SPARE)
A4	300-0780	C	UNDER VOLTAGE SENSOR (GEN)
A5	300-0847	B	MODULE-VOLTAGE 12V (AT O 8 E)
A6	300-0848	B	MODULE-24V TO 12V CONVERTER (AT C)
A7	300-0795	C	BATTERY CHARGER-2 AMP (AT O 8 E)
A8	300-0794	C	BATTERY CHARGER-2 AMP (AT C)
A9	300-0921	C	TO START STOP 12V (AT O 8 E)
A10	300-0922	C	TO START STOP 24V (AT C)
A11	300-0924	C	TO START STOP 12V (AT C)
A12	300-0924	C	TO START STOP 24V (AT C)
A13	300-0937	B	MODULE-BLANK (SPARE) (AT C 8 O)
A14	300-0926	C	2 TO 3 WIRE CONVERTER (ATSE)
A15	300-0796	C	BATTERY V SENSOR 12V (AT O 8 E)
A16	300-0797	C	BATTERY V SENSOR 24V (AT C)
A17	307-1199	B	ASSY-RETRANSFER 120V 50/60Hz
A18	300-0780	C	OVER VOLTAGE SENSOR (LINE)
A19	300-0930	C	PANEL ASSY-SWINGING
F1	321-0800(REF)	P	FUSE - 1 AMP 600V
F2	321-0780(REF)	P	FUSE-HOLDER
K3	307-1058	B	RELAY-INTERPOSING LINE 12V
K4	307-1058	B	RELAY-INTERPOSING GEN 12V
K5	307-1058	B	RELAY-TIMER 12V
K6	307-1058	B	RELAY-OVER VOLTAGE LINE 12V
M1	307-1104	B	CLOCK-PLANT EXERCISER 120V 60Hz
M2	307-1102	B	CLOCK-PLANT EXERCISER 120V 60Hz
P1	323-0854(REF)	P	PLUG-LINE DISCONNECT
R1	333-0045(REF)	A	RESISTOR-5 OHM 2.5 OHM TAP 75W
S1	306-0321(REF)	P	SWITCH-TEST TRANSFER
S2	306-0322(REF)	P	SWITCH-SELECTOR
T1	35-0370(REF)	B	TRANSFORMER-BAT CHARGER
T2,3	35-0374(REF)	C	TRANSFORMER ASSY-STEPPDOWN
T81	332-1515	A	MARKER STRIP
T82	332-1518	A	MARKER STRIP
T86	332-1489	A	MARKER STRIP
	338-0736(REF)	E	HARNES-MAIN
	338-0668	D	HARNES-OVER V
	338-0658	C	HARNES-BAT V
	338-0677	C	HARNES-MOTOR TIMER
	332-1279	-	9 PLUG-KEYING
	323-0814	P	GUIDES-PC BOARD
	307-1157	P	SPRING-RELAY NOLODOWN

CONTROL ACCESSORY GROUP-14

- BATTERY CHARGER MODULE
- 1 UNDER VOLTAGE SENSOR MODULES (LINE)
- 1 UNDER VOLTAGE SENSOR MODULE (GEN)
- NORMAL - TEST SWITCH
- WITH LOAD - WITHOUT LOAD SWITCH
- EXERCISER CLOCK (AT E ONLY)
- EXERCISER STOP
- TO START - STOP
- BATTERY VOLTAGE SENSOR
- 10 VOLT SENSOR MODULES (LINE)
- TO RETRANSFER (MOTOR)

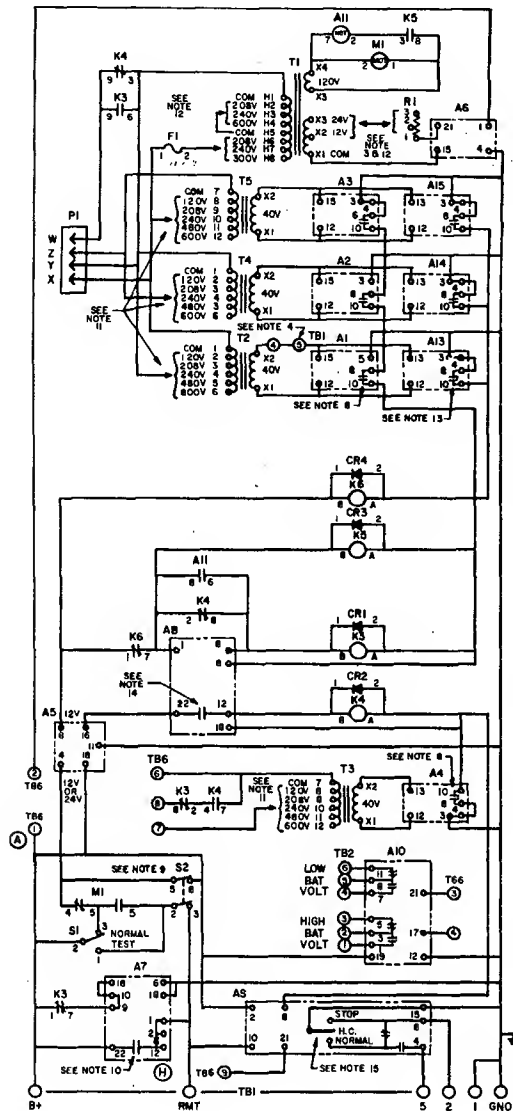
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY		
MODEL	80 Hz	50 Hz
AT C	-01	-04
AT O	-02	-05
AT E	-03	-06

1. MARK K4-8 10V-12V	2. 10V
3. ADDED K3 TO T84-8	4. 12V
5. WAS K3-B	6. 10V
7. WAS K3-A	8. 10V
9. NOTE WAS ON PLY	10. 10V
11. REM J7-2 TO J7-12	12. 10V
13. REM JUMPER ADD DIODE	14. 10V
15. REVISED NOTE 3	16. 10V
17. REM 5 FROM MODEL NO.	18. 10V
19. ADDED 50/60 Hz	20. 10V
21. DELETED 307-1271	22. 10V
23. ADDED 307-1271	24. 10V
25. ADDED 307-1271	26. 10V
27. ADDED 307-1271	28. 10V
29. ADDED 307-1271	30. 10V
31. ADDED 307-1271	32. 10V
33. ADDED 307-1271	34. 10V
35. ADDED 307-1271	36. 10V
37. ADDED 307-1271	38. 10V
39. ADDED 307-1271	40. 10V
41. ADDED 307-1271	42. 10V
43. ADDED 307-1271	44. 10V
45. ADDED 307-1271	46. 10V
47. ADDED 307-1271	48. 10V
49. ADDED 307-1271	50. 10V
51. ADDED 307-1271	52. 10V
53. ADDED 307-1271	54. 10V
55. ADDED 307-1271	56. 10V
57. ADDED 307-1271	58. 10V
59. ADDED 307-1271	60. 10V
61. ADDED 307-1271	62. 10V
63. ADDED 307-1271	64. 10V
65. ADDED 307-1271	66. 10V
67. ADDED 307-1271	68. 10V
69. ADDED 307-1271	70. 10V
71. ADDED 307-1271	72. 10V
73. ADDED 307-1271	74. 10V
75. ADDED 307-1271	76. 10V
77. ADDED 307-1271	78. 10V
79. ADDED 307-1271	80. 10V
81. ADDED 307-1271	82. 10V
83. ADDED 307-1271	84. 10V
85. ADDED 307-1271	86. 10V
87. ADDED 307-1271	88. 10V
89. ADDED 307-1271	90. 10V
91. ADDED 307-1271	92. 10V
93. ADDED 307-1271	94. 10V
95. ADDED 307-1271	96. 10V
97. ADDED 307-1271	98. 10V
99. ADDED 307-1271	100. 10V

3-30-73 JTM
CONTROL ACCESS PANEL
(WIRING DIAGRAM)
240V, 2W, 120/240V, 50/60Hz
626-0043



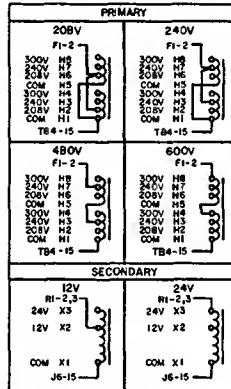
SCHEMATIC DIAGRAM



NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START ON AT C & AT D CONNECT TO B4-GND & RMT
3. WIRE START ON AT E CONNECT TO B4-1,2,3,4,5 12V CHARGING ON AT D & AT E 24V CHARGING ON AT C
4. FOR 12V BATTERY CONNECT WIRE MARKED T1-X2, X3 RI-2,3 TO RI-2
5. FOR 24V BATTERY CONNECT WIRE MARKED T1-X2, X3 RI-2,3 TO RI-3
6. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB1-4 B 5
7. REMOVE JUMPER BETWEEN TB4-7 & 9
8. TO ADD OVER B UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 B 10
9. TO ADD PUSH TO RETRANSFER (MOTOR TIMER) REMOVE JUMPER BETWEEN TB4-S 8 7
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES WHEN VOLTAGE IS NORMAL (A1, A2, A3, A4)
11. TEST OR EXERCISE (S2 SHOWN IN WITHOUT LOAD POSITION)
 1. WITH LOAD-PLANT STARTS AND TAKES OVER LOAD PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
 2. WITHOUT LOAD-PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
12. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSSES AFTER 0.5 SEC TO 1 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
13. WIRE TRANSFORMERS T2, 5, 4 & 5 AS FOLLOWS:

FOR 208V CONNECT	T4-1 TO T2-3	T6-7 TO T5-9	T8-7 TO T4-3
FOR 240V CONNECT	T4-1 TO T2-4 <td>T6-7 TO T5-10 <td>T8-7 TO T4-4 </td></td>	T6-7 TO T5-10 <td>T8-7 TO T4-4 </td>	T8-7 TO T4-4
FOR 480V CONNECT	T4-1 TO T2-5 <td>T6-7 TO T5-11 <td>T8-7 TO T4-5 </td></td>	T6-7 TO T5-11 <td>T8-7 TO T4-5 </td>	T8-7 TO T4-5
FOR 600V CONNECT	T4-1 TO T2-6 <td>T6-7 TO T5-12 <td>T8-7 TO T4-6 </td></td>	T6-7 TO T5-12 <td>T8-7 TO T4-6 </td>	T8-7 TO T4-6
14. WIRE T1 TRANSFORMER AS FOLLOWS:



12V CHARGING ON AT D & E
24V CHARGING ON AT C

CONTROL ACCESSORY GROUP 14
BATTERY CHARGER MODULE
3 UNDER VOLTAGE SENSOR MODULES (LINE)
1 UNDER VOLTAGE SENSOR MODULE (GEN)
NORMAL - TEST SWITCH
WITH LOAD-WITHOUT LOAD SWITCH
EXERCISER CLOCK (AT E ONLY)
TO START-STOP
TO TRANSFER
BATTERY VOLTAGE SENSOR
20 VOLT SENSOR MODULES (LINE)
TO RETRANSFER (MOTOR)

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY
MODEL 60 Hz 5.0 Hz
AT C -01 -04
AT D -02 -05
AT E -03 -06

REF DES	PART NO	QTY	DESCRIPTION	LINE
A1,2,5	300-0780	C 5	UNDER VOLTAGE SENSOR (LINE)	
A4	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)	
AS	300-0847	B 1	MODULE - VOLTAGE 12V (AT D & E)	
A6	300-0648	B 1	MODULE - 24V TO 12V CONVERTER (AT C)	
A6	300-0793	C 1	BATTERY CHARGER - 2 AMP 24V (AT D & E)	
A7	300-0794	C 1	BATTERY CHARGER - 2 AMP 24V (AT C)	
A7	300-0921	C 1	TO START-STOP 12V (AT D & E)	
A7	300-0922	C 1	TO START-STOP 24V (AT C)	
			0.5 SEC TO 1 SEC DELAY ON START	
			0.5 SEC TO 5 MIN DELAY ON STOP	
AB	300-0924	C 1	TO TRANSFER	
			0.5 SEC TO 1 SEC DELAY ON TRANSFER	
AS	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & D)	
A10	300-0926	C 1	2 TO 5 WIRE CONVERTER (AT E)	
A10	300-0796	C 1	BATTERY V SENSOR 12V (AT D & E)	
A10	300-0797	C 1	BATTERY V SENSOR 24V (AT C)	
A11	307-1199	B 1	ASSY - RETRANSFER 120V 50/60HZ	
A13, A15	300-0780	C 5	OVER VOLTAGE SENSOR (LINE)	
A16, 7, 18	300-0937	B 3	MODULE - BLANK (SPARE)	
A18	300-0928	C 1	PANEL ASSY - SWINGING	
F1	321-0801REF	P 1	FUSE - 1 AMP 600V	
	321-0781REF	P 1	FUSE - HOLDER	
K5	307-1058	B 1	RELAY - INTERPOSING LINE 12V	
K4	307-1058	B 1	RELAY - INTERPOSING GEN 12V	
K5	307-1058	B 1	RELAY - TIMER 12V	
K6	507-1058	B 1	RELAY - OVER VOLTAGE LINE 12V	
M1	307-1104	B 1	CLOCK - PLANT EXERCISER 120V 50HZ	
	307-1102	B 1	CLOCK - PLANT EXERCISER 120V 60HZ	
P1	323-0851REF	P 1	PLUG - LINE DISCONNECT	
R1	353-0046REF	A 1	RESISTOR - 6 OHM 2.5 OHM TAP 75W	
S1	308-0321REF	P 1	SWITCH - TEST TRANSFER	
S2	508-0322REF	P 1	SWITCH - SELECTOR	
T1	35-0379REF	B 1	TRANSFORMER - BAT CHARGER	
T2-S	556-2161	A 1	LEAD ASSY (USE ON 208V & 240V ONLY)	
T2-S	35-0379REF	C 2	TRANSFORMER ASSY - STEPDOWN	
T81	532-1515	A 1	MARKER STRIP	
T82	352-1516	A 1	MARKER STRIP	
T86	332-1465	A 1	MARKER STRIP	
	338-0655REF	E 1	HARNES - MAIN	
	338-0657	O 1	HARNES - OVER V	
	338-0658	C 1	HARNES - BAT V	
	338-0677	C 1	HARNES - MOTOR TIMER	
	332-1279	- 13	PLUG - KEYING	
	525-0814	P 5	GUIDES - PC BOARD	
	332-0050	- 1	CLIP - WIRE	

13. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES WHEN VOLTAGE GOES ABOVE NORMAL (A13, A14 & A15)
14. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES AFTER A DELAY OF 0.5 SEC TO 1 SEC DELAY ON LOAD TRANSFER
15. 2 TO 3 WIRE CONVERTER (USED ON ATSE ONLY)
THE SELECTOR SWITCH HAS THREE POSITIONS:
STOP ---- SHUTS DOWN THE PLANT AND PREVENTS IT FROM STARTING. USE THIS POSITION WHEN SERVICING THE PLANT.
NORMAL ---- ALLOWS THE PLANT TO START AND ASSUME THE LOAD IF A LINE FAILURE OCCURS.
HAND CRANK ---- PREVENTS AUTOMATIC PLANT STARTING. BUT ALLOWS STARTING AND STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

D REM REF 338-0657 58 77 1	12-02-73
P WAS 300-0928	
N REM K4-8 TO K3-8	
M ADDED K3-8 - TB4-18	
L WAS K3-8	
K WAS K3-8	
J REM J7-2 TO J7-12	
I REM JUMPER ADD DIODE	
G REVISED NOTE 3	
F REM S FROM MODEL NO	
E J7-1 WAS J1-1 ON SE	
D ADDED 50/60 HZ	
C DELETED 307-1171B	
B A13-18 WAS J13-18	
A ADDED TAB 1 TO SCHEM	

626-0044

1-12-73

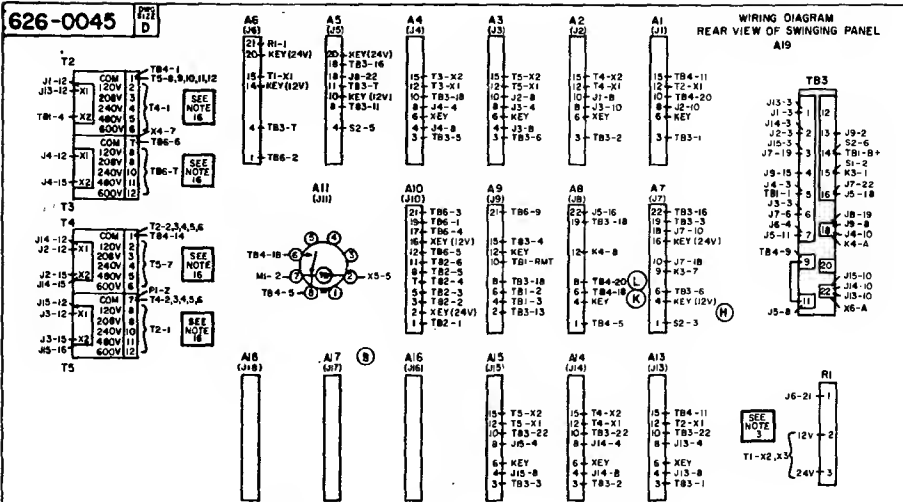
CONTROL ACCESSORY PANEL (WIRING DIAGRAM)

208, 240, 480, 600V, 3PH, 4W, 60/60HZ

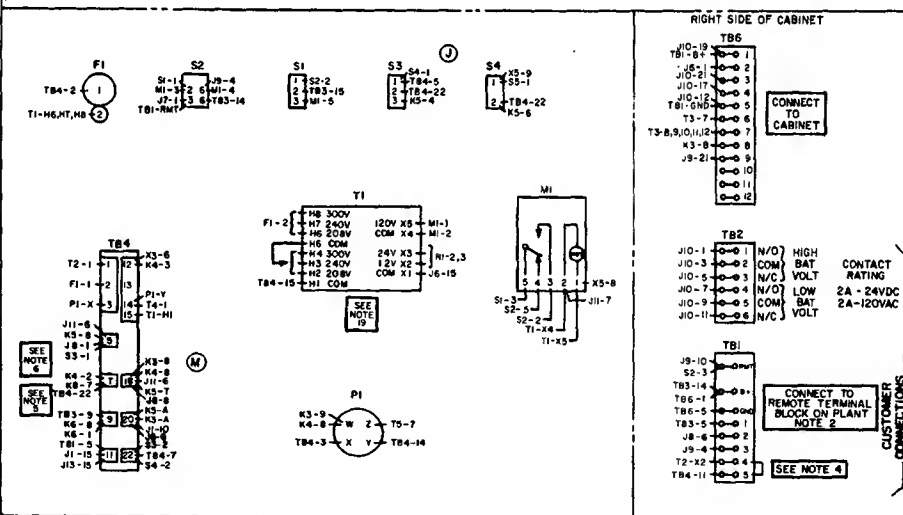
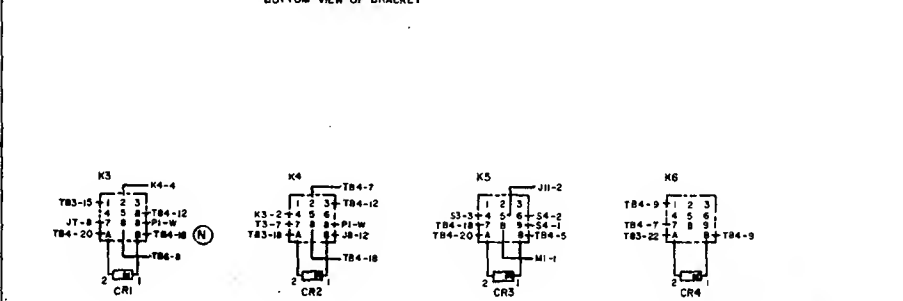
626-0044

626-0045

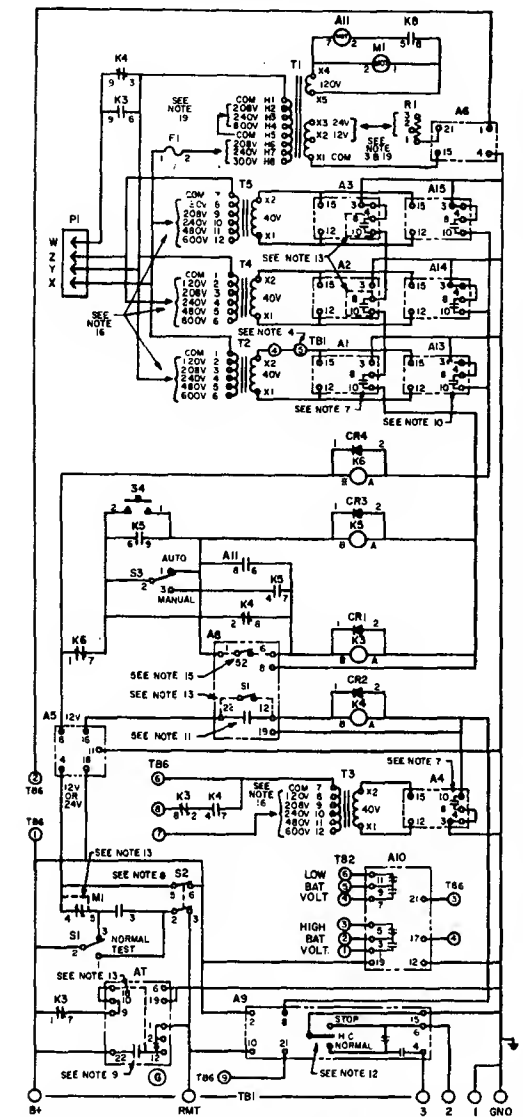
D



BOTTOM VIEW OF BRACKET



SCHEMATIC DIAGRAM



NOTES:

1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
2. WIRE START ON AT C & B, AT D CONNECT TO B+ & GND B RMT
3. WIRE START ON AT E CONNECT TO B+ & 1, 2 & 3
4. TO ADD AREA PROTECTION EQUIPMENT, OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN T84-1 & 5
5. REMOVE JUMPER BETWEEN T84-1 & 9
6. REMOVE JUMPER BETWEEN T84-1 & 5 & T
7. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSES WHEN VOLTAGE IS NORMAL (A1, A2, A3, A4)

8. TEST OR EXERCISE IS2 SHOWN IN WITHOUT LOAD POSITION
9. WITH LOAD - PLANT STARTS AND TAKES OVER LOAD. PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
10. WITHOUT LOAD - PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD

11. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSSES AFTER A 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY

12. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES WHEN VOLTAGE GOES ABOVE NORMAL (A13, A14 & A15)

13. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSSES AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER

14. 2 TO 3 WIRE CONVERTER (AT E ONLY) THE SELECTOR SW HAS THREE POSITIONS: STOP - - - - - STOPS PLANT PREVENTS STARTING USE THIS POSITION FOR SERVICING PLANT NORMAL - - - - - PLANT TO START ASSUMES LOAD IF A LINE FAILURE OCCURS. HAND CRANK - PREVENTS AUTOMATIC START. ALLOWS STARTING & STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.

15. THIS DASHED LINE REPRESENTS A JUMPER CIRCUIT THAT MUST BYPASS A CONTACT OR CLOSE A CIRCUIT TO OPERATE WITHOUT THE REFERENCED MODULE

16. S2 IS SET IN "ON" POSITION AT FACTORY. WHEN ADDING TO RETRANSFER (MOTOR) TIMER SET S2 TO "OFF" POSITION

17. WHEN ADDING TO TRANSFER WITHOUT A TO RETRANSFER (MOTOR) TIMER ADD WIRE JUMPER BETWEEN TERMINAL 1 & 6 ON THE TO TRANSFER BOARD

18. WIRE TRANSFORMERS T2, 3, 4 & 5 AS FOLLOWS FOR 208V CONNECT

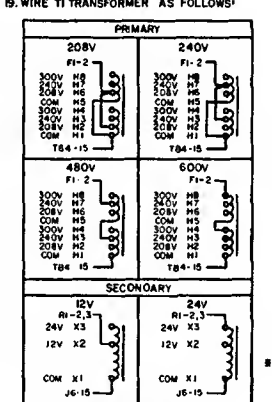
19. FOR 240V CONNECT

20. FOR 480V CONNECT

21. FOR 600V CONNECT

22. WIRING DIAGRAM SHOWS CIRCUIT AS IF ALL ADDER PACKAGES WERE INSTALLED, PLUS IT SHOWS JUMPERS REQUIRED WHEN THEY ARE NOT INSTALLED

23. WIRE T1 TRANSFORMER AS FOLLOWS:



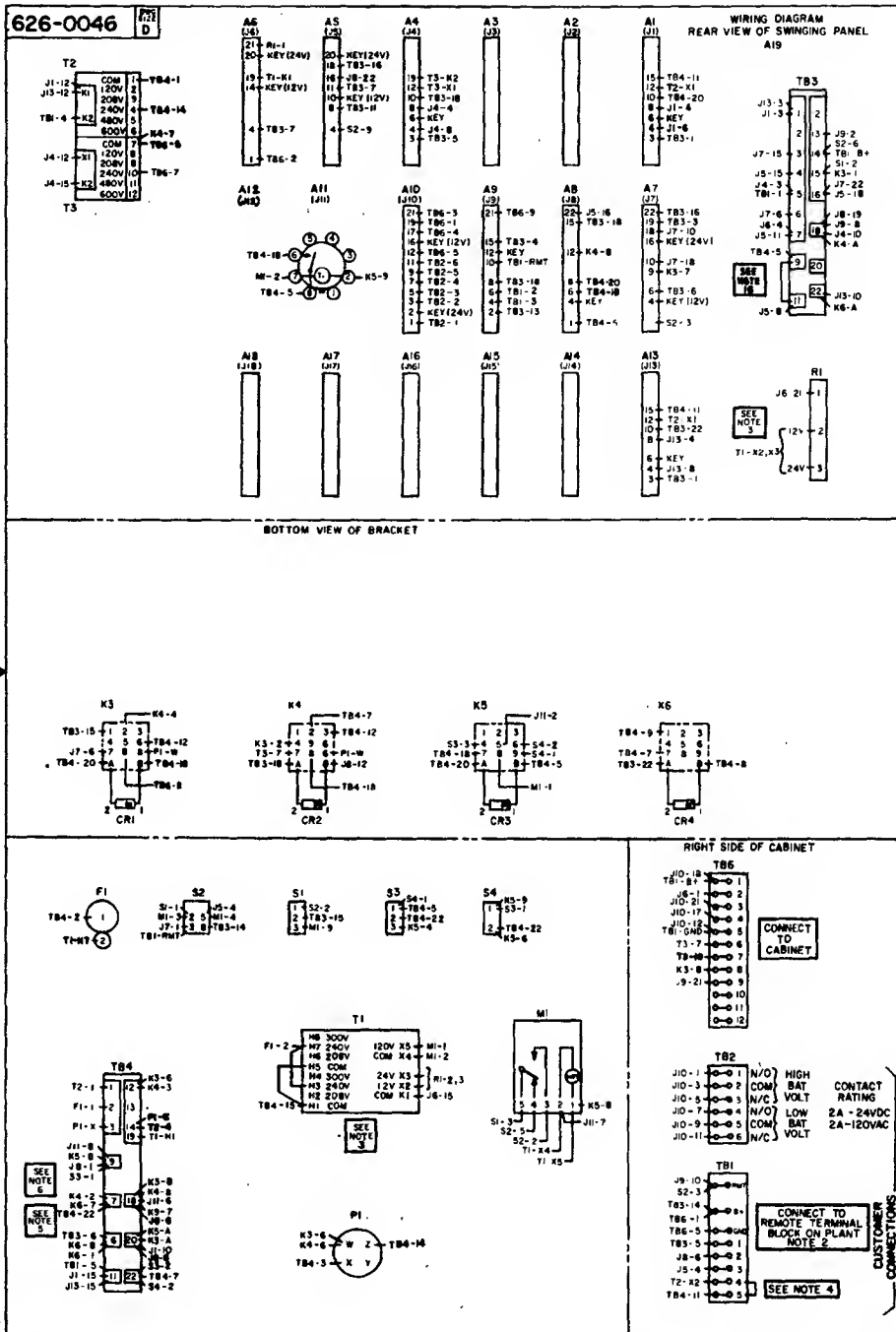
24. 12V CHARGING ON ATSD & E
25. 24V CHARGING ON ATSC

REF DES	PART NO	QTY	DESCRIPTION
A1	300-0780	C 1	UNDER VOLTAGE SENSOR (LINE)
A2,3	300-092T	B 1	BYPASS PLUG - UNDER VOLTAGE
			SET S1 & S2 ON OR OFF
A4	300-0780	C 2	UNDER VOLTAGE SENSOR (LINE)
A5	300-0780	C 1	UNDER VOLTAGE SENSOR (GEN)
A6	300-0847	B 1	MODULE - VOLTAGE 12V (AT D & E)
	300-0848	B 1	MODULE - 24V TO 12V CONVERTER (AT C)
A7	300-0937	B 1	MODULE - BLANK (SPARE)
	300-0793	C 1	BATTERY CHARGER - 2 AMP (AT O & E)
	300-0794	C 1	BATTERY CHARGER - 2 AMP (AT C)
A8	300-092T	B 1	BYPASS PLUG - START STOP
			SET S1 ON B S2 OFF
	300-092H	C 1	TO START - STOP 12V (AT O & E)
	300-092H	C 1	TO START - STOP 24V (AT C)
			0.5 SEC TO 10 SEC DELAY ON START
			0.5 SEC TO 5 MIN DELAY ON STOP
A9	300-092T	B 1	BYPASS PLUG - TRANSFER
			SET S1 ON B S2 (SEE NOTE 14)
	300-092H	C 1	TO TRANSFER (SEE NOTE 15)
			0.5 SEC TO 10 SEC DELAY
A10	300-0937	B 1	MODULE - BLANK (SPARE) (AT C & D)
	300-0926	C 1	2 TO 3 WIRE CONVERTER (AT E)
A11	300-0937	B 1	MODULE - BLANK (SPARE)
A12	300-0796	C 1	BATTERY VOLTAGE SENSOR (AT D & E)
A13	300-0797	C 1	BATTERY VOLTAGE SENSOR (AT C)
A14,15	300-0937	B 2	MODULE - BLANK (SPARE)
	307-1199	B 1	ASSY - RETRANSFER 120V 50/60HZ
A16,17,18	300-0937	B 3	MODULE - BLANK (SPARE)
	300-0780	C 3	OVER VOLTAGE SENSOR (LINE)
	300-0780	C 3	OVER VOLTAGE SENSOR (LINE)
	300-0937	B 3	MODULE - BLANK (SPARE)
A19	300-0928	C	PANEL ASSY - SWINGING
F1	321-D180	P	FUSE - 1 AMP 600V
	321-019K	P	FUSE - HOLDER
K3	307-1058	B	RELAY - INTERPOSING LINE 12V
K4	307-1058	B	RELAY - INTERPOSING GEN 12V
K5	307-1058	B	RELAY - TIME & RETRANSFER 12V
K6	307-1058	B	RELAY - OVER VOLTAGE LINE 12V
M1	301-3487	A	PLATE - CLOCK COVER
	307-1104	B	CLOCK - PLANT EXERCISER 120V 50HZ
	307-1102	B	CLOCK - PLANT EXERCISER 120V 60HZ
P1	323-D185	P	PLUG - LINE DISCONNECT
R1	303-0048	A	RESISTOR - 0.5W 2.5 OHM TAP TSW
S1	308-0321	P	SWITCH - TEST TRANSFER
S2	308-0321	P	SWITCH - SELECTOR
S3	308-0321	P	SWITCH - MANUAL & AUTO
S4	308-0175	A	SWITCH - RETRANSFER
T1	315-0375	B	TRANSFORMER - BATTERY CHARGER
T2	336-2161	A	LEAD ASSY (USE ON 208 & 240V ONLY)
T2-5	315-0374	C 2	TRANSFORMER ASSY - STEPODOWN
T81	332-1515	A	MARKER STRIP
T82	332-1516	A	MARKER STRIP
T86	332-1469	A	MARKER STRIP
	338-0655	E	HARNES - MAIN
	338-0664	C	HARNES - RETRANSFER
	338-0667	D	HARNES - OVER V
	338-0658	C	HARNES - BAT V
	338-0677	C	HARNES - MOTDR TIMER
	332-1219	- 13	PLUG - KEYING
	323-0814	P 14	GUIDES - PC BOARD

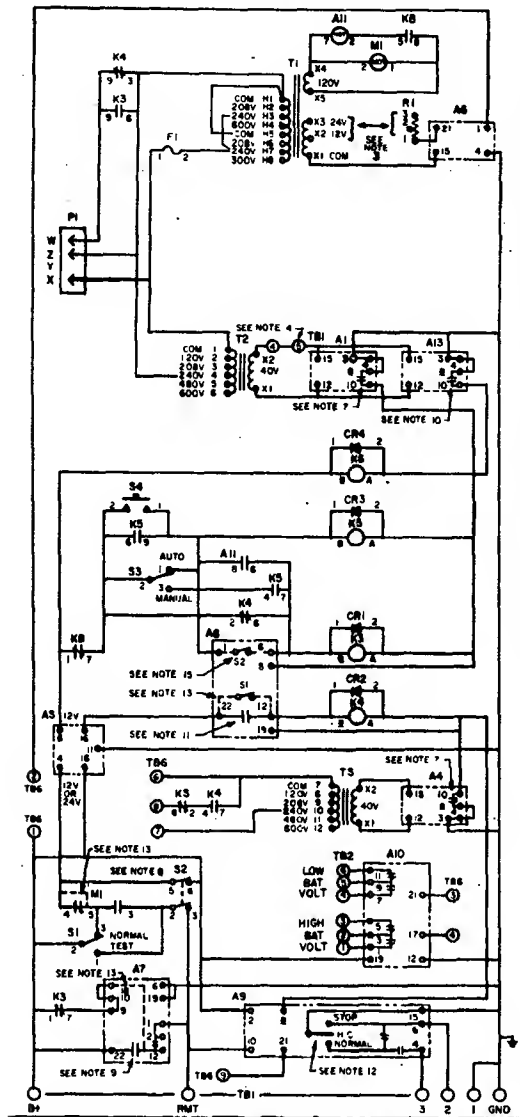
CONTROL ACCESSORY GROUP 15

- STANDARD
- 1 UNDER VOLTAGE SENSOR (LINE)
 - 1 UNDER VOLTAGE SENSOR (GEN)
 - 2 TO 3 WIRE CONVERTER (AT E ONLY)
 - NORMAL - TEST SWITCH
 - WITH LOAD - WITHOUT LOAD SW
 - MANUAL PUSH TO RETRANSFER
 - PLUG-IN - MODULE PACKAGE'S
 - BATTERY CHARGER MODULE
 - 2 UNDER VOLT SENSORS (LINE)
 - 1 OR 3 OVER VOLT SENSORS (LINE)
 - TO START STOP
 - TO RETRANSFER (MOTOR)
 - TO TRANSFER
 - BATTERY VOLTAGE SENSOR
 - BATTERY CHARGER
 - EXERCISER CLOCK

REF DES	PART NO	QTY	DESCRIPTION
A	01	AT C	SPEC A
	02	AT D	
	03	AT E	
			208, 240, 480, 600V, 1 OR 3 PH, 50/60HZ
			626-0045



SCHMATIC DIAGRAM



- NOTES:
1. ALL COMPONENTS SHOWN IN DE-ENERGIZED POSITION UNLESS OTHERWISE NOTED
 2. WIRE START ON AT C & AT D CONNECT TO S+ GND & RMT
 3. WIRE START ON AT E CONNECT TO S+ GND & RMT
 4. TO ADD AREA PROTECTION EQUIPMENT OR REMOTE TEST TRANSFER SWITCH, REMOVE JUMPER BETWEEN TB1-4 & 5
 5. REMOVE JUMPER BETWEEN TB4-7 & 9
 6. REMOVE JUMPER BETWEEN TB4-5 & 7
 7. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE IS NORMAL (A1A2, A3, A4)

8. TEST OR EXERCISE (SZ SHOWN IN WITHOUT LOAD POSITION)
- 8.1. WITH LOAD-PLANT STARTS AND TAKES OVER LOAD-PLANT RUNS FOR DURATION OF TEST OR EXERCISE PERIOD PLUS ANY TIME DELAYS
- 8.2. WITHOUT LOAD-PLANT STARTS AND RUNS FOR DURATION OF TEST OR EXERCISE PERIOD
9. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH WHICH CLOSURES AFTER A 0.5 SEC TO 10 SEC DELAY AND OPENS AFTER A 0.5 MIN TO 5 MIN DELAY
10. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES WHEN VOLTAGE GOES ABOVE NORMAL (A1A3, A14 & A15)
11. THIS CONTACT SYMBOLIZES A SOLID STATE SWITCH THAT CLOSURES AFTER A DELAY OF 0.5 SEC TO 10 SEC DELAY ON LOAD TRANSFER
12. 2 TO 3 WIRE CONVERTER (AT E ONLY)
- THE SELECTOR SW HAS THREE POSITIONS:
- STOP --- STOPS PLANT PREVENTS STARTING USE THIS POSITION FOR SERVICING PLANT
- NORMAL --- ALLOWS PLANT TO START ASSUMES LOAD IF A LINE FAILURE OCCURS. HAND CRANK PREVENTS AUTOMATIC START. ALLOWS STARTING & STOPPING AT THE PLANT. USE THIS POSITION FOR PLANT MAINTENANCE.
13. THIS DASHED LINE REPRESENTS A JUMPER CIRCUIT THAT MUST BYPASS A CONTACT OR CLOSE A CIRCUIT TO OPERATE WITHOUT THE REFERENCED MODULE
14. S2 IS SET IN 'ON' POSITION AT FACTORY. WHEN ADDING TO RETRANSFER (MOTOR) TIMER SET S2 TO OFF POSITION
15. WHEN ADDING TO TRANSFER WITHOUT A TO RETRANSFER (MOTOR) TIMER ADD WIRE JUMPER BETWEEN TERMINAL 1 & 6 ON THE TO TRANSFER BOARD
16. TO ADD OVER & UNDER FREQ SENSING, REMOVE JUMPER BETWEEN TB3-9 & 11.

17. WIRING DIAGRAM SHOWS CIRCUIT AS IF ALL ADDER PACKAGES WERE INSTALLED, PLUS IT SHOWS JUMPERS REQUIRED WHEN THEY ARE NOT INSTALLED

REF DES	PART AC	REV	QTY	PARTS LIST	DESCRIPTION
A1	300-0780	C	1	UNDER VOLTAGE SENSOR	(LINE)
A2,3	300-0937	B	2	MODULE-BLANK (SPARE)	
A4	300-0780	C	1	UNDER VOLTAGE SENSOR	(GEN)
A5	300-0847	B	1	MODULE-VOLTAGE 12V	(AT D & E)
A6	300-0848	B	1	MODULE-24V TO 12V CONVERTER (AT C)	
A7	300-0937	B	2	BATTERY CHARGER-2 AMP	(AT D & E)
A8	300-0794	REF	C	BATTERY CHARGER-2 AMP	(AT C)
A9	300-0927	B	1	BYPASS PLUG-START STOP	
A10	300-0927	B	1	SET S1 ON & S2 OFF	
A11	300-0927	B	1	TO START-STOP 12V	(AT D & E)
A12	300-0927	B	1	TO START-STOP 24V	(AT C)
A13	300-0927	B	1	0.5 SEC TO 10 SEC DELAY ON START	
A14	300-0927	B	1	0.5 SEC TO 5 MIN DELAY ON STOP	
A15	300-0927	B	1	BYPASS PLUG-TRANSFER	
A16	300-0927	B	1	SET S1 ON & S2 (SEE NOTE 14)	
A17	300-0927	B	1	TO TRANSFER (SEE NOTE 15)	
A18	300-0937	B	1	0.5 SEC TO 10 SEC DELAY	
A19	300-0937	B	1	MODULE-BLANK (SPARE)	(AT C & D)
A20	300-0926	C	1	2 TO 3 WIRE CONVERTER	(AT E)
A21	300-0937	B	1	MODULE-BLANK (SPARE)	
A22	300-0794	REF	C	BATTERY VOLTAGE SENSOR (AT D & E)	
A23	300-0794	REF	C	BATTERY VOLTAGE SENSOR (AT C)	
A24	300-0937	B	2	MODULE-BLANK (SPARE)	
A25	307-1199	REF	B	ASSY-RETRANSFER 120V	50/60HZ
A26	300-0937	B	1	MODULE-BLANK (SPARE)	
A27	300-0780	REF	C	OVER VOLTAGE SENSOR	(LINE)
A28	300-0937	B	2	MODULE-BLANK (SPARE)	
A29	300-0930	C	1	PANEL ASSY-SWINGING	
A30	321-0178	REF	P	FUSE-1 AMP 600V	
A31	307-1058	B	1	RELAY-INTERPOSING LINE	12V
A32	307-1058	B	1	RELAY-INTERPOSING GEN	12V
A33	307-1058	B	1	RELAY-TIMER	12V
A34	307-1058	B	1	RELAY-OVER VOLTAGE LINE	12V
A35	301-3487	A	1	PLATE-CLOCK COVER	
A36	307-1104	REF	B	CLOCK-PLANT EXERCISER 120V 60HZ	
A37	307-1104	REF	B	CLOCK-PLANT EXERCISER 120V 60HZ	
A38	323-0184	REF	P	PLUG-LINE DISCONNECT	
A39	333-0646	REF	A	RESISTOR-4.0HM 2.50HM-TAP TSW	
A40	308-0321	REF	P	SWITCH-TEST TRANSFER	
A41	308-0321	REF	P	SWITCH-SELECTOR	
A42	308-0321	REF	P	SWITCH-MANUAL & AUTO	
A43	308-0175	A	1	SWITCH-RETRANSFER	
A44	315-0379	REF	B	TRANSFORMER-BATTERY CHARGER	
A45	336-2151	A	1	LEAD ASSY (USE ON 208 & 240V ONLY)	
A46	315-0374	REF	C	TRANSFORMER ASSY-STEPDOWN	
A47	332-1515	A	1	MARKER STRIP	
A48	332-1515	A	1	MARKER STRIP	
A49	332-1469	A	1	MARKER STRIP	
A50	338-0780	REF	E	HARNES-MAIN	
A51	338-0654	C	1	HARNES-RETRANSFER	
A52	338-0868	D	1	HARNES-OVER V	
A53	338-0658	C	1	HARNES-BAT V	
A54	338-0877	C	1	HARNES-MOTOR TIMER	
A55	332-1279	-	3	PLUG-KEYING	
A56	323-0814	P	15	GUIDE-PC BOARD	
A57	307-1157	P	3	SPRING-RELAY HOLD-DOWN	

CONTROL ACCESSORY GROUP-15

- STANDARD
- 1 UNDER VOLTAGE SENSOR (LINE)
 - 1 UNDER VOLTAGE SENSOR (GEN)
 - 2 TO 3 WIRE CONVERTER (AT E ONLY)
 - NORMAL-TEST SWITCH
 - WITHLOAD-WITHOUT LOAD SW
 - MANUAL PUSH TO RETRANSFER
 - PLUG-IN-MODULE PACKAGES
 - BATTERY CHARGER MODULE
 - 2 UNDER VOLT SENSOR (LINE)
 - 1 OVER VOLT SENSOR (LINE)
 - TO START STOP
 - TO RETRANSFER (MOTOR)
 - TO TRANSFER
 - BATTERY VOLTAGE SENSOR
 - WIRE-IN-PACKAGES
 - EXERCISER CLOCK

REV	DATE	BY	CHKD	APPD	DATE
01	AT C				
02	AT D				
03	AT E				
SPEC A					
208, 240, 480, 600V, 1PH, 50/60HZ					
626-0046					

METER-LAMP PANELS

DIAGRAM

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Begin Spec B

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626-0113	Combination 5, 1 Phase	73
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626-0115	Combination 6, 1 Phase	75
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626-0119	Combination 8, 1 Phase	79
626-0120	Combination 8, 3 Phase	80
626-0122	Combination 9, 1 Phase, 120/240 V	81
626-0123	Combination 9, 3 Phase, 208/240 V	82
626-0124	Combination 9, 3 Phase, 480/600 V	83
626-0126	Combination 10, 1 Phase, 120/240 V	84
626-0127	Combination 10, 3 Phase, 208/240 V	85
626-0128	Combination 10, 3 Phase, 480/600 V	86
626-0130	Combination 11, 1 Phase, 120/240 V	87
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626-0134	Combination 12, 1 Phase, 120/240 V	90
626-0135	Combination 12, 3 Phase, 208/240 V	91
626-0136	Combination 12, 3 Phase, 480/600 V	92
626-0161	Combination 13, 1 or 3 Phase.....	93
626-0162	Combination 14, 1 or 3 Phase.....	94
626-0163	Combination 15, 1 or 3 Phase.....	95
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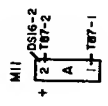
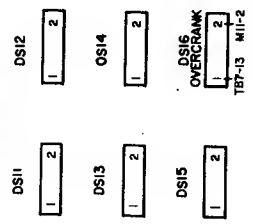
Spec A

626-0009	Combination 1, 1 Phase or 3 Phase	97
626-0010	Combination 2, 1 Phase or 3 Phase	98
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626-0023	Combination 9, 3 Phase, 208/240 V	110
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626-0026	Combination 10, 1 Phase, 120/240 V	112
626-0027	Combination 10, 3 Phase, 208/240 V	113
626-0028	Combination 10, 3 Phase, 480/600 V	114
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626-0031	Combination 11, 3 Phase, 208/240 V	116
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626-0036	Combination 12, 3 Phase, 480/600 V	120

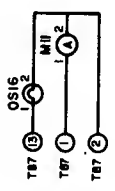
626-0109

REV C

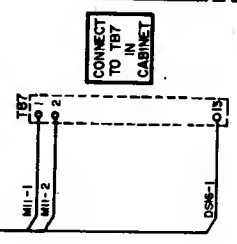
REAR VIEW OF
METER PANEL



SCHEMATIC



LEFT SIDE OF CABINET



CONNECT
TO TB7
IN
CABINET

PARTS LIST				DESCRIPTION
REF. DES.	PART NO.	PART QTY	REF. QTY	

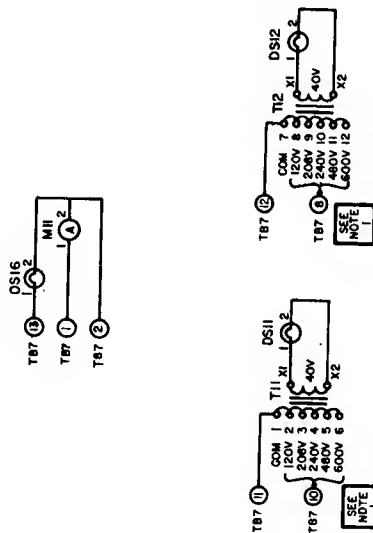
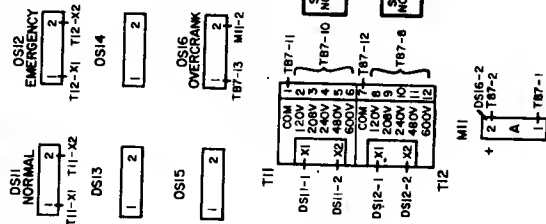
626-0109

THIS INFORMATION
IS FOR
MANUFACTURERS
USE ONLY

MODEL DASH NO
AT C.D&E -01

REV	DATE	BY	CHKD	DATE
1	4-12-74	WMS	3	4-12-74
METER LAMP PANEL (WIRING DIAGRAM)				
AT C } SPEC B				
AT D } AT E				
120,208-240,480,600V				
50/60 Hz				
626-0109 C				

EW OF
PANEL



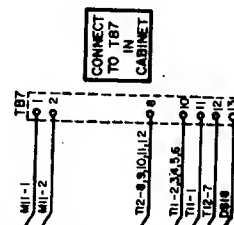
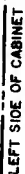
NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 120V, CONNECT T87-10 TO T11-
FOR 208V, CONNECT T87-10 TO T11-
FOR 240V, CONNECT T87-10 TO T11-
FOR 480V, CONNECT T87-10 TO T11-
FOR 600V, CONNECT T87-10 TO T11-

PARTS LIST			
REF. DES.	PART NO.	QTY	DESCRIPTION
DS11	322-0146	A	LAMP - NORMAL 56V
DS12	322-0147	A	LAMP - EMERGENCY 56V
DS13-15	322-0141	A	3 LENS & BEZEL ASSY
OS16	322-0107	A	LAMP - OVERCRANK (HV)
M11	302-0807	A	1 AMMETER - BAT CHARGER 0-2 AMP
T11/12	315-0374	C	1 TRANSFORMER ASSY - STEPDOWN
	338-0882	B	1 HARNESS - METER
	338-0561	C	1 HARNESS - LAMPS (NORMAL & EMERGENCY)
	301-3504	C	1 PANEL - METER
	98-2412	D	1 SILKSCREEN-METER PANEL
	98-2445	A	1 CASE

METER - LAMP COMBINATION: 02

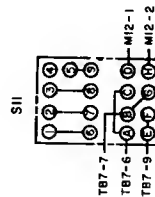
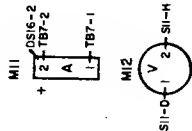
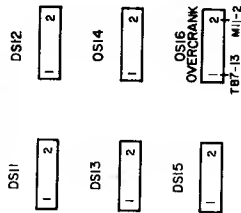
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
NORMAL & EMERGENCY LAMPS

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	MODEL	OASH NO
	DATE CODE	--01

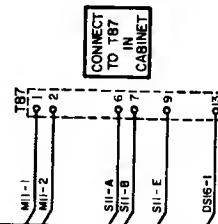
[illegible]

626-0114

REAR VIEW OF
METER PANEL

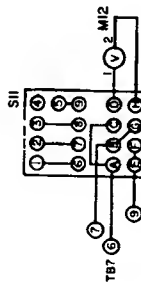
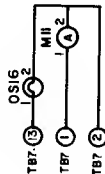


LEFT SIDE OF CABINET



CONNECT
TO TBT
IN THE
CABINET

SCHEMATIC



REF. DES.	PART NO.	QTY.	DESCRIPTION
DS11-15	322-0141	A 5	LENS B BEZEL ASSY
OS16	322-0107	A 1	LAMP OVERCRANK (14V)
MI1	302-0807	A 1	AMMETER-BAT CHARGER 0-2 AMP
MI2	302-0421	P 1	VOLTMETER 0-300VAC (208-240V)
	302-0422	P 1	VOLTMETER 0-600VAC (480V)
	302-0423	P 1	VOLTMETER 0-750VAC (600V)
SI1	308-0022	B 1	SWITCH-VOLTMETER
	332-0592	A 3	JUMPER
	98-2443	A 1	SILKSCREEN-SELECTOR SWITCH
	338-0885	D 1	HARNES-METER 3PH
	301-3506	C 1	PANEL-METER
	98-2412	D 1	SILKSCREEN-METER PANEL
	98-2445	A 1	LABEL-POWER SENTRY

METER - LAMP COMBINATION OS

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW

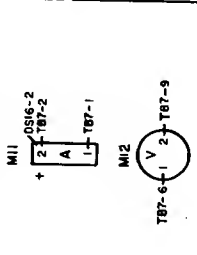
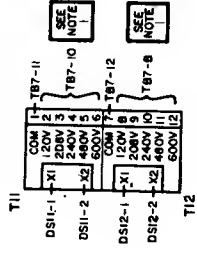
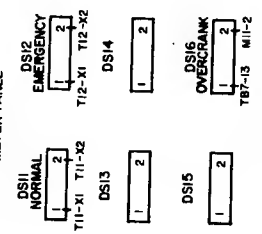
THIS INFORMATION
IS FOR THE
MANUFACTURERS
USE ONLY

VOLTAGE	DASH NO
208-240V	-01
480V	-02
600V	-03

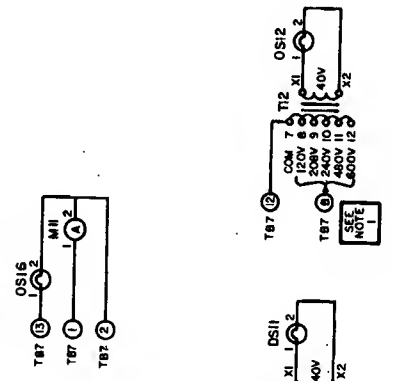
REV	DATE	BY	CHKD
1	5-1-74	WJB	
DIVISION OF AIRCRAFT ENGINEERING			
PROJECT: 626-0114			
SHEET: 4-9-74			
COR: WJB			
METER LAMP PANEL			
(WIRING DIAGRAM)			
SPEC B			
208-240/480/600V			
3PH, 4W, 50/60Hz			
626-0114 C			

626-0115

REAR VIEW OF
METER PANEL



SCHEMATIC



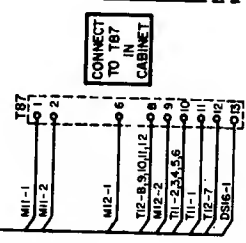
NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:

FOR 120V, CONNECT T87-10 TO T11-2
T87-8 TO T12-2
FOR 240V, CONNECT T87-10 TO T11-4
T87-8 TO T12-10

REF. DES.	PART NO.	QTY	DESCRIPTION
OS11	322-0146	A	LAMP-NORMAL 56V
OS12	322-0147	A	LAMP-EMERGENCY 56V
DS13-15	322-0141	A	3 LENS & BEZEL ASSY
OS16	322-0107	A	LAMP-OVERCRANK (14V)
M11	302-0807	A	AMMETER-BAT CHARGER 0-2 AMP
M12	302-0420	P	VOLTMETER 0-150VAC (120V)
	302-0421	P	VOLTMETER 0-300VAC (240V)
T11	315-D374	C	TRANSFORMER ASSY-STEPDOWN
	338-0883	C	HARNES-METER 1PH
	338-0661	C	HARNES-LAMPS(NORMAL & EMERGENCY)
	301-3503	C	PANEL-METER
	98-2413	O	SILKSCREEN-METER PANEL
	98-2445	A	LABEL-POWER SENTRY

METER-LAMP COMBINATION: 06
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
NORMAL & EMERGENCY LAMPS

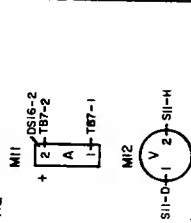
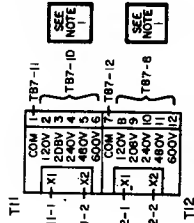
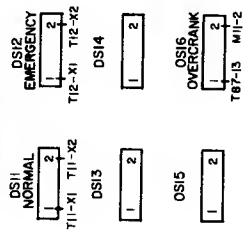
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY
VOLTAGE DASH NO
120V -01
240V -D2



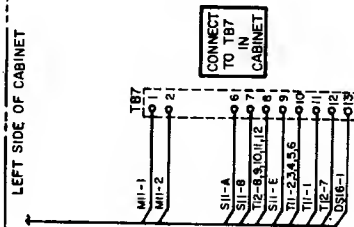
REV	DATE	BY	CHKD
1	5-17-74	5-17-74	5-17-74
DIVISION OF NAVAL COMMISSION			
PROJECT: 626-0115			
SHEET: 4-12-74			
RMS: 35A/100V			
METER LAMP PANEL (WIRING DIAGRAM)			
SPEC 8			
120V, 2W, 120/240V, 50/60Hz			
626-0115			

626-0116

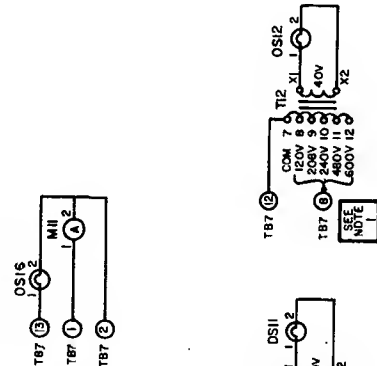
REAR VIEW OF
METER PANEL



LEFT SIDE OF CABINET



SCHEMATIC



NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS

FOR 208V, CONNECT T87-10 TO T11-3
T87-8 TO T12-9
FOR 240V, CONNECT T87-10 TO T11-4
T87-8 TO T12-10
FOR 480V, CONNECT T87-10 TO T11-5
T87-8 TO T12-11
FOR 600V, CONNECT T87-10 TO T11-6
T87-8 TO T12-12

626-0116

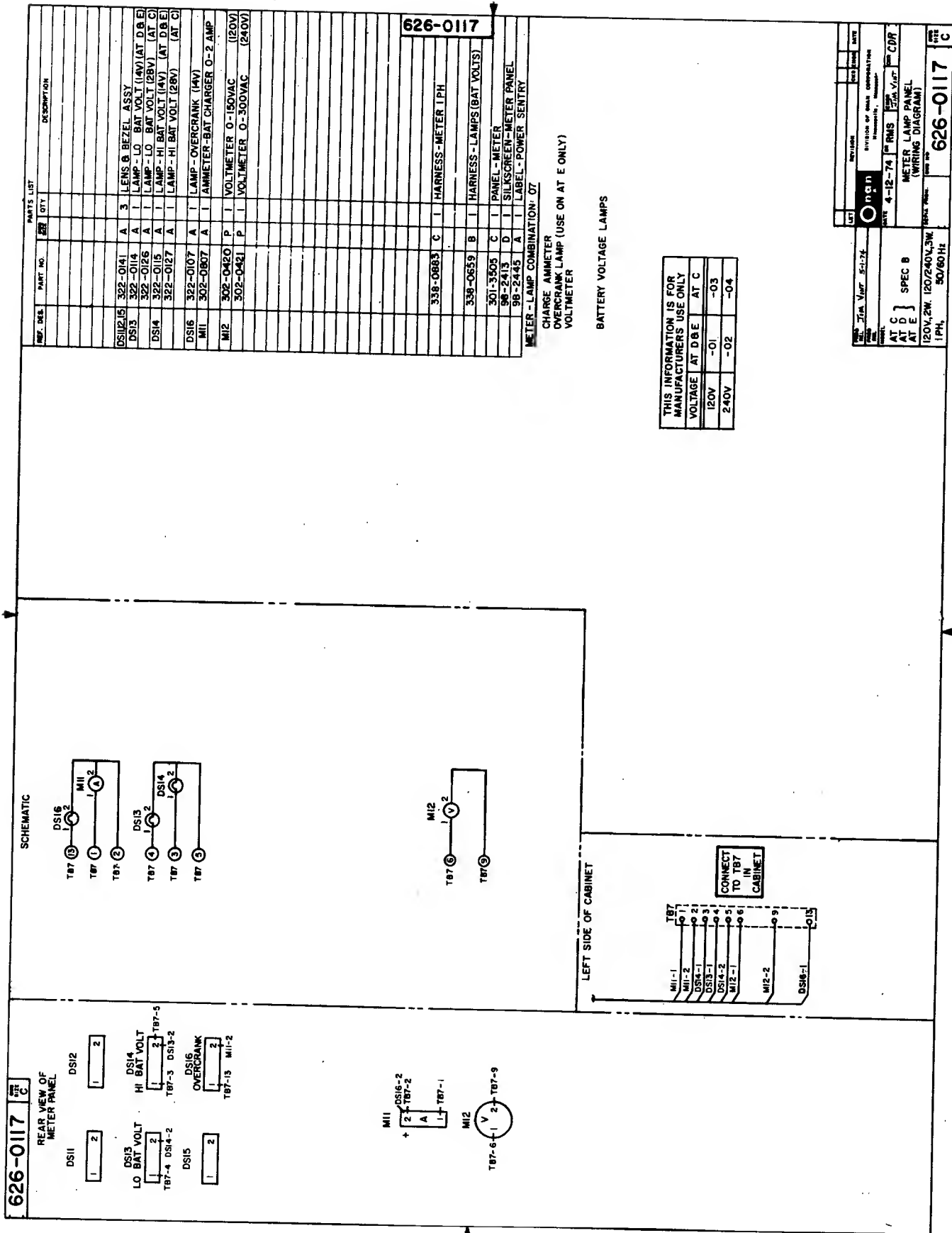
REF. DES.	PART NO.	QTY	DESCRIPTION
DS11	322-0146	A	LAMP - NORMAL 56V
DS12	322-0147	A	LAMP - EMERGENCY 56V
DS13-15	322-0141	A	3 LENS & BEZEL ASSY
DS16	322-0107	A	LAMP - OVERCRANK (14V)
M11	302-0807	A	AMMETER-BAT CHARGER 0-2 AMP
M12	302-0421	P	VOLTMETER 0-300VAC (208-240V)
	302-0422	P	VOLTMETER 0-600VAC (480V)
	302-0423	P	VOLTMETER 0-750VAC (600V)
S11	308-0022	B	1 SWITCH - VOLTMETER
	332-0592	A	3 JUMPER
T11Q	98-2443	A	1 SILKSCREEN - SELECTOR SWITCH
	315-0374	C	1 TRANSFORMER ASSY - STEPDOWN
	338-0885	D	1 HARNESS - METER 3 PH
	338-0661	C	1 HARNESS - LAMP-3 (NORMAL & EMERGENCY)
	301-3506	C	1 PANEL - METER
	98-2412	D	1 SILKSCREEN - METER PANEL
	98-2445	A	1 LABEL - POWER ENTRY

METER - LAMP COMBINATION: 08

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW
NORMAL & EMERGENCY LAMPS

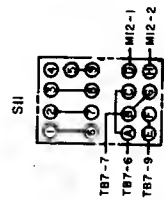
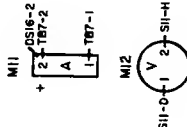
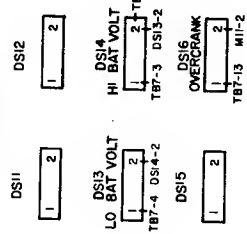
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	
VOLTAGE	DASH NO
208-240V	- 01
480V	- 02
600V	- 03

REV	DATE	BY	CHKD	DATE
1	7/11/77	J. M. VINT		
DIVISION OF ORMA CORPORATION				
TRANSFORMER - METER				
REV	DATE	BY	CHKD	DATE
1	4-12-74	RMS		
METER LAMP PANEL (WIRING DIAGRAM)				
3PH, 4W, 50/60Hz				
626-0116				

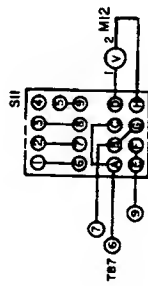
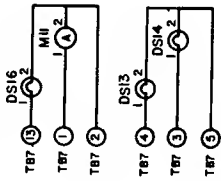


626-0118

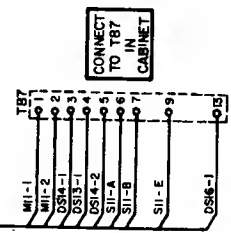
REAR VIEW OF
METER PANEL



SCHEMATIC



LEFT SIDE OF CABINET



CONNECT
TO T87
IN
CABINET

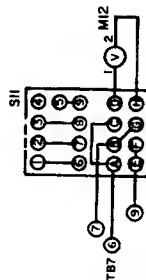
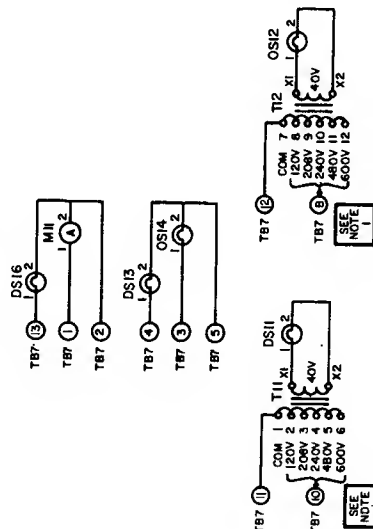
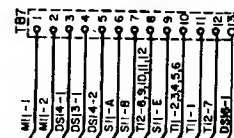
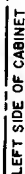
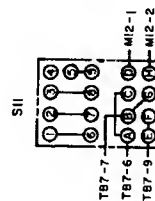
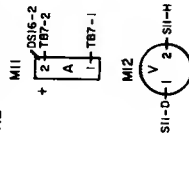
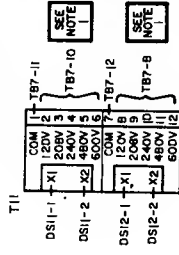
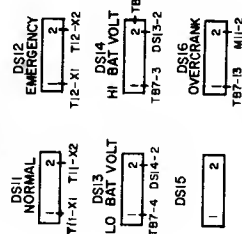
REF. DES.	PART NO.	QTY.	DESCRIPTION
DS11	322-0141	A	3 LENS & BEZEL ASSY
DS12	322-0114	A	1 LAMP - LO BAT VOLT (14V) (AT D & E)
DS13	322-0126	A	1 LAMP - LO BAT VOLT (28V) (AT C)
DS14	322-0115	A	1 LAMP - HI BAT VOLT (14V) (AT D & E)
DS15	322-0127	A	1 LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0107	A	1 LAMP - OVERCRANK (14V)
MI1	302-0807	A	1 AMMETER-BAT CHARGER 0-2 AMP
MI2	302-0421	P	1 VOLTMETER 0-300VAC (208-240V)
	302-0422	P	1 VOLTMETER 0-600VAC (480V)
	302-0423	P	1 VOLTMETER 0-750VAC (600V)
SI1	308-0022	B	1 SWITCH-VOLTMETER
	332-0592	A	3 JUMPER
	98-2443	A	1 SILKSCREEN-SELECTOR SWITCH
	338-0685	D	1 HARNESS-METER 3PH
	338-0659	B	1 HARNESS-LAMPS (BAT VOLTS)
	301-3506	C	1 PANEL-METER
	98-2412	D	1 SILKSCREEN-METER PANEL
	98-2445	A	1 LABEL-POWER SENTRY

626-0118

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW
BATTERY VOLTAGE LAMPS

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	
VOLTAGE	AT D & E
208-240V	-01
480V	-02
600V	-03

REV. 1	DATE 6-1-74	BY J. M. V. J.	626-0118
DIVISION OF ONAS CORPORATION			
4-12-74			
RMS 1/2" V. J. CDR			
METER LAMP PANEL			
(WIRING DIAGRAM)			
208,240,480,600V			
3PH, 4W, 50/60 Hz			
626-0118			

REAR VIEW OF
METER PANEL

NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS.

FOR 208V, CONNECT
T87-10 TO T11-3
T87-8 TO T12-9
FOR 240V, CONNECT
T87-10 TO T11-4
T87-10 TO T12-10
T87-8 TO T12-10
FOR 480V, CONNECT
T87-10 TO T11-5
T87-8 TO T12-11
T87-8 TO T12-11
FOR 600V, CONNECT
T87-8 TO T12-12

REF DES	PART NO	QTY	PARTS LIST	DESCRIPTION
DS11	322-0146	A	1	LAMP - NORMAL 56V
DS12	322-0147	A	1	LAMP - EMERGENCY 56V
DS13	322-0114	A	1	LAMP - LO BAT VOLT (4V)(LAT D.B.E)
	322-0126	A	1	LAMP - LO BAT VOLT (28V) (AT C)
DS14	322-0115	A	1	LAMP - HI BAT VOLT (14V) (AT D.B.E)
	322-0127	A	1	LAMP - HI BAT VOLT (28V) (AT C)
DS15	322-0141	A	1	LENS & BEZEL ASSY
DS16	322-0107	A	1	LAMP - OVERCRANK (14V)
MI1	502-0807	A	1	AMMETER -BAT CHARGER 0-2 AMP
MI2	502-0421	P	1	VOLTMETER 0-300VAC(20B-240V)
	502-0422	P	1	VOLTMETER 0-600VAC (480V)
	502-0423	P	1	VOLTMETER 0-750VAC (600V)
SI1	338-0022	B	1	SWITCH -VOLTMETER
	332-0592	A	3	JUMPER
	98-2443	A	1	SILKS GREEN - SELECTOR SWITCH
TI1/2	315-0374	C	1	TRANSFORMER ASSY-STEPDOWN
	338-0685	D	1	HARNES -METER 3PH
	338-0661	C	1	HARNES -LAMPS (NORMAL & EMERGENCY)
	338-0659	B	1	HARNES - LAMPS (BAT VOLTS)
	301-3506	C	1	PANEL -METER
	98-2412	D	1	SILKSCREEN-METER PANEL
	98-2445	A	1	LABEL -POWER SENTRY

626-0120

METER - LAMP COMBINATION: Q8

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT METER
SELECTOR SW
NEEDLE & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

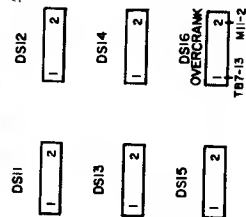
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY		
VOLTAGE	AT D8E	AT C
208-240V	-01	-04
480V	-02	-05
600V	-03	-06

THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

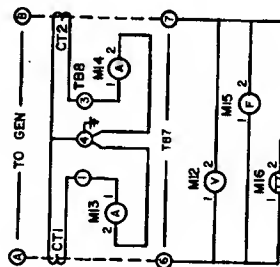
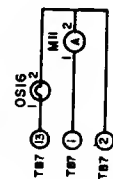
DATE	TIME	UNIT	5-1-74
AT [C]	SPEC B		
AT [D]			
AT [E]			
AT [F]			
208240, 480/600V			
3PH, 4W, 50/60HZ			
DATE	TIME	UNIT	5-1-74
AT [C]	SPEC B		
AT [D]			
AT [E]			
AT [F]			
208240, 480/600V			
3PH, 4W, 50/60HZ			

626-0122

REAR VIEW OF
METER PANEL



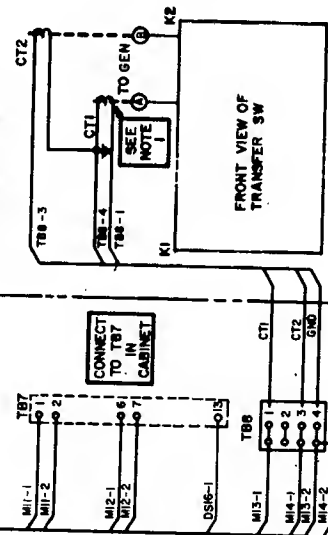
SCHEMATIC



LEFT SIDE OF CABINET

FRONT VIEW OF CABINET

MOUNT CURRENT
TRANSFORMERS IN
CABINET ABOVE
TRANSFER SWITCH



FRONT VIEW OF
TRANSFER SW

NOTES:
1. NO OF PRI TURNS REQUIRED FOR
CORRECT METER READING
4 TURNS
800,000 2 TURNS
200,400 1 TURN

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2	302-0831	1	TRANSFORMER ASST-CUR (30)
	302-0832	1	TRANSFORMER ASST-CUR (60)
	302-0833	1	TRANSFORMER ASST-CUR (100)
	302-0834	1	TRANSFORMER ASST-CUR (200)
	302-0835	1	TRANSFORMER ASST-CUR (400)
DS11-15	302-D141	5	LENS & BEZEL ASSY
DS16	302-D107	1	LAMP-OVERCRANK (14V)
M11	302-0807	1	AMMETER-BAT CHARGER 0-2 AMP
M12	302-0421	1	VOLTMETER 0-300VAC
M13,14	302-0403	2	AMMETER-AC 0-35AMP (30)
	302-0405	2	AMMETER-AC 0-75AMP (60)
	302-0406	2	AMMETER-AC 0-100AMP (100)
	302-0411	2	AMMETER-AC 0-200AMP (200)
	302-0605	2	AMMETER-AC 0-400AMP (400)
M15	302-0895	1	METER-FREQ POINTER 240V 50HZ
M16	302-0811	1	METER-FREQ POINTER 240V 60HZ
	302-0469	1	METER-RUNNING TIME 240V 50HZ
	302-0466	1	METER-RUNNING TIME 240V 60HZ
TB8	302-1517	1	MARKER STRIP
	336-0884	1	HARNES-METER 1PH
	301-3508	1	PANEL-METER
	98-2413	1	SILKSCREEN-METER PANEL
	98-2445	1	LABEL-POWER SENTRY

626-0122

CHANGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)

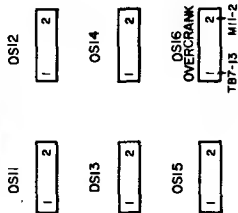
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY		
AMPERE	60 Hz	50 Hz
30	-01	-06
60	-02	-07
100	-03	-08
200	-04	-09
400	-05	-10

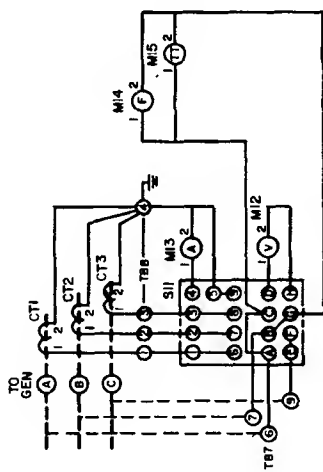
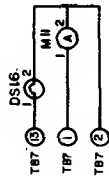
DATE	REV	BY	CHK
10/1/74	1	W. J. H. V. H.	W. J. H. V. H.
DIVISION OF ARMY CORP. OF ENGINEERS			
4-12-74			
RMS			
METER LAMP PANEL			
(WIRING DIAGRAM)			
240V, 2W, 120/240V, 3W, 1PH, 50/60 Hz			
SPEC B			
626-0122 C			

626-0123

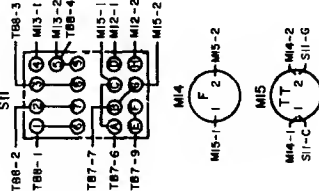
REAR VIEW OF
METER PANEL



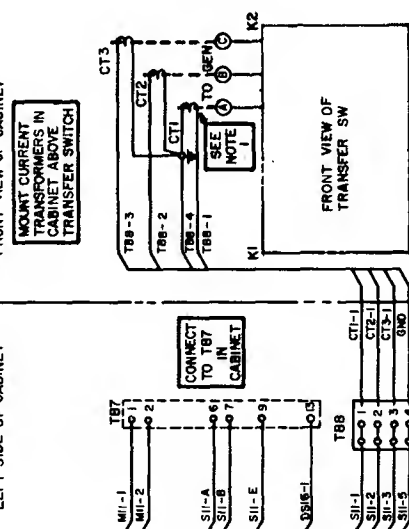
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

AMPERE	VOLTAGE	60 Hz	50 Hz
30	208V	-01	-11
60	240V	-02	-12
100	208V	-03	-13
100	240V	-04	-14
200	208V	-05	-15
200	240V	-06	-16
400	208V	-07	-17
400	240V	-08	-18
400	240V	-09	-19
400	240V	-10	-20

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2,3	302-0847 B	1	TRANSFORMER ASSY-CUR (30)
	302-0848 B	1	TRANSFORMER ASSY-CUR (60)
	302-0849 B	1	TRANSFORMER ASSY-CUR (100)
	302-0850 B	1	TRANSFORMER ASSY-CUR (200)
	302-0855 B	1	TRANSFORMER ASSY-CUR (400)
DSII-15	322-041 A	5	LENS B BEZEL ASSY
DSI6	322-007 A	1	LAMP-OVERCRANK (4V)
M11	302-0807 A	1	AMMETER-BAT CHARGER 0-2 AMP
M12	302-0421 P	1	VOLTMETER 0-300VAC
M13	302-0404 B	1	AMMETER-AC 0-35AMP (30)
	302-0406 B	1	AMMETER-AC 0-75AMP (60)
	302-0408 B	1	AMMETER-AC 0-100AMP (100)
	302-0411 P	1	AMMETER-AC 0-200AMP (200)
	302-0605 P	1	AMMETER-AC 0-400AMP (400)
M14	302-0694 B	1	METER-FREQ POINTER 208V 50HZ
	302-0695 B	1	METER-FREQ POINTER 240V 50HZ
	302-0810 B	1	METER-FREQ POINTER 208V 60HZ
	302-0811 B	1	METER-FREQ POINTER 240V 60HZ
M15	302-0469 P	1	METER-RUNNING TIME
SII	308-0022 B	1	SWITCH-VOLT B AMMETER
	332-0592 A	3	JUMPER
	98-2443 A	1	SILKSCREEN-SELECTOR SWITCH
T88	332-1517 A	1	MARKER STRIP
	338-0886 D	1	HARNES-METER 3PH
	301-3507 C	1	PANEL-METER
	98-2412 D	1	SILKSCREEN-METER PANEL
	98-2445 A	1	LABEL-POWER SENTRY

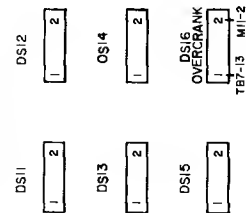
METER-LAMP COMBINATION: 09

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW

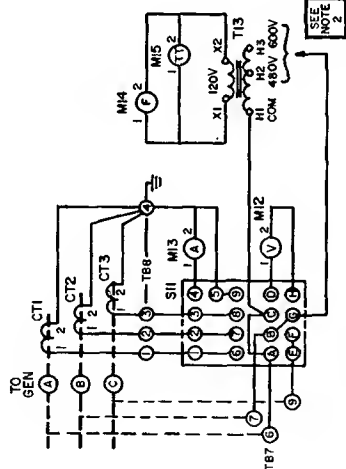
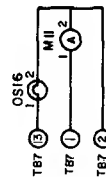
REV. 1	REV. 2	REV. 3	REV. 4	REV. 5
1	2	3	4	5
DATE	DATE	DATE	DATE	DATE
4-12-74	4-12-74	4-12-74	4-12-74	4-12-74
BY	BY	BY	BY	BY
ON	ON	ON	ON	ON
AT C	AT D	AT E	AT F	AT G
AT B	AT C	AT D	AT E	AT F
AT A	AT B	AT C	AT D	AT E
AT 6	AT 7	AT 8	AT 9	AT 10
AT 11	AT 12	AT 13	AT 14	AT 15
AT 16	AT 17	AT 18	AT 19	AT 20
AT 21	AT 22	AT 23	AT 24	AT 25
AT 26	AT 27	AT 28	AT 29	AT 30
AT 31	AT 32	AT 33	AT 34	AT 35
AT 36	AT 37	AT 38	AT 39	AT 40
AT 41	AT 42	AT 43	AT 44	AT 45
AT 46	AT 47	AT 48	AT 49	AT 50
AT 51	AT 52	AT 53	AT 54	AT 55
AT 56	AT 57	AT 58	AT 59	AT 60
AT 61	AT 62	AT 63	AT 64	AT 65
AT 66	AT 67	AT 68	AT 69	AT 70
AT 71	AT 72	AT 73	AT 74	AT 75
AT 76	AT 77	AT 78	AT 79	AT 80
AT 81	AT 82	AT 83	AT 84	AT 85
AT 86	AT 87	AT 88	AT 89	AT 90
AT 91	AT 92	AT 93	AT 94	AT 95
AT 96	AT 97	AT 98	AT 99	AT 100

626-0124

REAR VIEW OF
METER PANEL

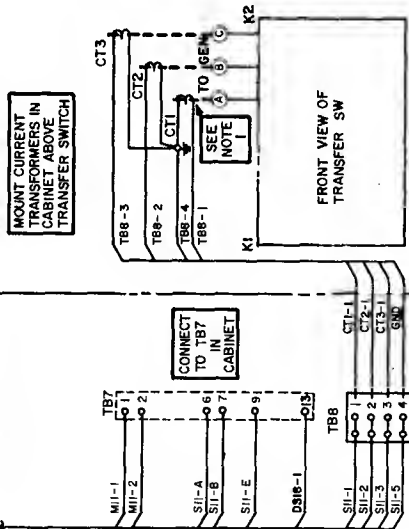


SCHEMATIC



LEFT SIDE OF CABINET

FRONT VIEW OF CABINET



SEE
NOTE
2

NOTES:
NO. OF PRI TURNS REQUIRED FOR
CORRECT METER READING
30A, 100A 4 TURNS
60A, 100A 2 TURNS
200A, 400A 1 TURN

2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 480V, CONNECT S11-G TO T13-H3
FOR 600V, CONNECT S11-G TO T13-H13

REF. DES.	PART NO.	QTY	DESCRIPTION
CT1,2,3	302-0847	B	TRANSFORMER ASST.-CUR
	302-0848	B	TRANSFORMER ASST.-CUR
	302-0849	B	TRANSFORMER ASST.-CUR
	302-0850	B	TRANSFORMER ASST.-CUR
	302-0855	B	TRANSFORMER ASST.-CUR
DS11-15	322-0141	A	5 LENS B BEZEL ASSY
DS16	322-0107	A	LAMP - OVERCRANK (14V)
M11	302-0807	A	AMMETER-BAT CHARGER (14V)
M12	302-0422	P	VOLTMETER 0-600V
	302-0423	P	VOLTMETER 0-750V
M13	302-0404	B	AMMETER - AC 0-35AMP
	302-0406	B	AMMETER - AC 0-75AMP
	302-0408	B	AMMETER - AC 0-100AMP
	302-0411	P	AMMETER - AC 0-200AMP
	302-0605	P	AMMETER - AC 0-400AMP
M14	302-0883	B	METER - FREQ POINTER 120V 50Hz
	302-0809	B	METER - FREQ POINTER 120V 60Hz
M15	302-0468	P	METER - RUNNING TIME 120V 50Hz
	302-0465	P	METER - RUNNING TIME 120V 60Hz
S11	308-0022	B	SWITCH - VOLT & AMMETER
	332-0592	A	JUMPER
	98-2443	A	SILKSCREEN - SELECTOR SWITCH
T13	315-0377	A	TRANSFORMER - STEPDOWN
TBB	332-1517	A	MARKER STRIP
	338-0887	O	HARNES - METER 3 PH
	301-3507	C	PANEL - METER
	98-2412	D	SILKSCREEN - METER PANEL
	98-2445	A	LABEL - POWER ENTRY

626-0124

METER - LAMP COMBINATION: 09

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
AMPERE	VOLTAGE	60 Hz	50 Hz
30	480V	-01	-11
	600V	-02	-12
60	480V	-03	-13
	600V	-04	-14
100	480V	-05	-15
	600V	-06	-16
200	480V	-07	-17
	600V	-08	-18
400	480V	-09	-19
	600V	-10	-20

REV. NO.	DATE	BY	CHKD.
1	4-12-74	WJS	WJS
DIVISION OF ORCA CORPORATION			
METER LAMP PANEL			
(WIRING DIAGRAM)			
626-0124			

PARTS LIST



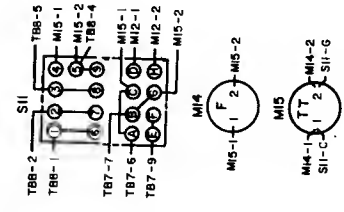
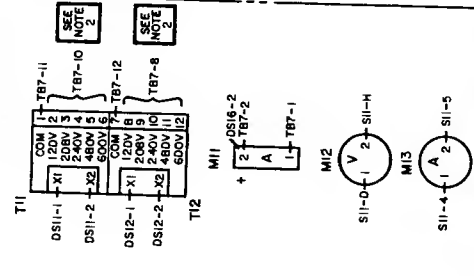
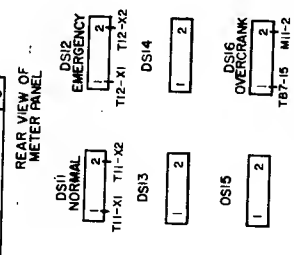
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY		
AMPERE	60 Hz	50 Hz
30	- 01	- 06
60	- 02	- 07
100	- 03	- 08
200	- 04	- 09
400	- 05	- 10

METER - LAMP COMBINATION: 10

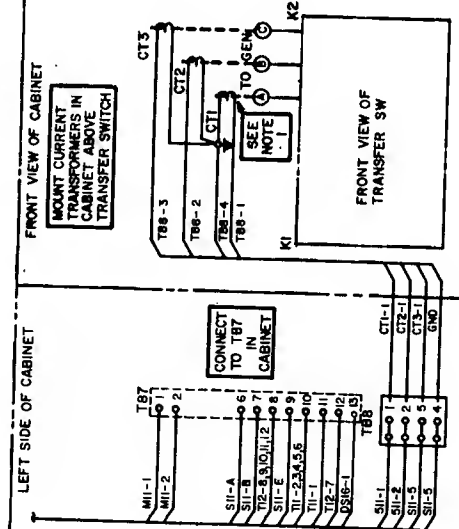
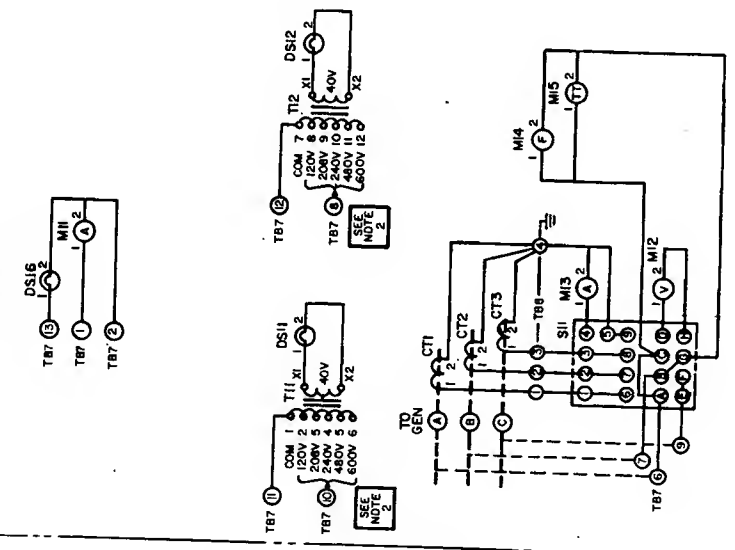
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
FREO METER
RUNNING TIME METER
CURRENT TRANSFORMER
NORMAL & EMERGENCY LAMPS

[illegible]

626-0127



SCHEMATIC



NOTES:
1. OF PRI TURNS REQUIRED FOR
CORRECT METER READING
30A 100A 2 TURNS
60, 100A 1 TURN
200, 400A 1 TURN

2. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 208V CONNECT T87-10 TO T11-3
T87-10 TO T11-4
FOR 240V CONNECT T87-8 TO T12-10

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

AMPERE	VOLTAGE	60 Hz	50 Hz
30	208V	-01	-11
60	240V	-02	-12
100	208V	-03	-13
200	240V	-04	-14
400	208V	-05	-15
	240V	-06	-16
	208V	-07	-17
	240V	-08	-18
	208V	-09	-19
	240V	-10	-20

REF. DES.	PART NO.	QTY	DESCRIPTION
CT1,2,3	302-0847	1	TRANSFORMER ASSY - CUR
	302-0848	1	TRANSFORMER ASSY - CUR
	302-0849	1	TRANSFORMER ASSY - CUR
	302-0850	1	TRANSFORMER ASSY - CUR
	302-0851	1	TRANSFORMER ASSY - CUR
DS11	322-0146	1	LAMP - NORMAL 56V
DS12	322-0147	1	LAMP - EMERGENCY 56V
DS13	322-0141	1	LENS & BEZEL ASSY
DS16	302-0807	1	LAMP OVERCIRCUIT (4V)
M11	302-0401	1	AMMETER - 0-2 AMP
M12	302-0402	1	VOLTMETER 0-300VAC
M13	302-0404	1	AMMETER - AC 0-35AMP
	302-0405	1	AMMETER - AC 0-75AMP
	302-0406	1	AMMETER - AC 0-100AMP
	302-0411	1	AMMETER - AC 0-200AMP
	302-0412	1	AMMETER - AC 0-400AMP
M14	302-0894	1	METER-FREQ POINTER 208V 50Hz
	302-0895	1	METER-FREQ POINTER 240V 50Hz
	302-0810	1	METER-FREQ POINTER 208V 60Hz
	302-0811	1	METER-FREQ POINTER 240V 60Hz
M15	302-0469	1	METER-RUNNING TIME 50Hz
	302-0466	1	METER-RUNNING TIME 60Hz
S11	302-0022	1	SWITCH-VOLT & AMMETER
	302-0092	1	JUMPER
T11,2	302-0574	1	SILKSCREEN-SELECTOR SWITCH
T88	302-1517	1	TRANSFORMER ASSY-STEPDOWN MARKER STRIP
	338-0886	1	HARNESS-METER 3PH
	338-0669	1	HARNESS-LAMPS (NORMAL & EMERGENCY)
	301-3507	1	PANEL-METER
	98-2412	1	SILKSCREEN-METER PANEL
	98-2445	1	LABEL-POWER ENTRY

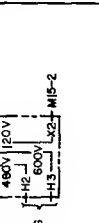
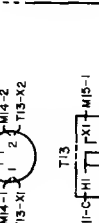
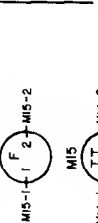
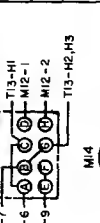
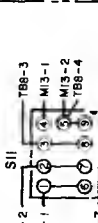
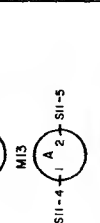
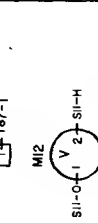
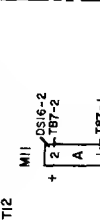
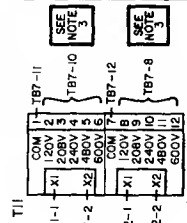
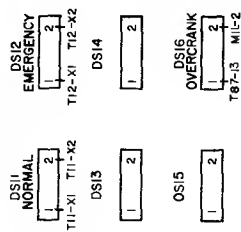
CHARGE AMMETER
OVERCIRCUIT LAMP (USE ON AT E ONLY)
VOLT METER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
NORMAL & EMERGENCY LAMPS

626-0127

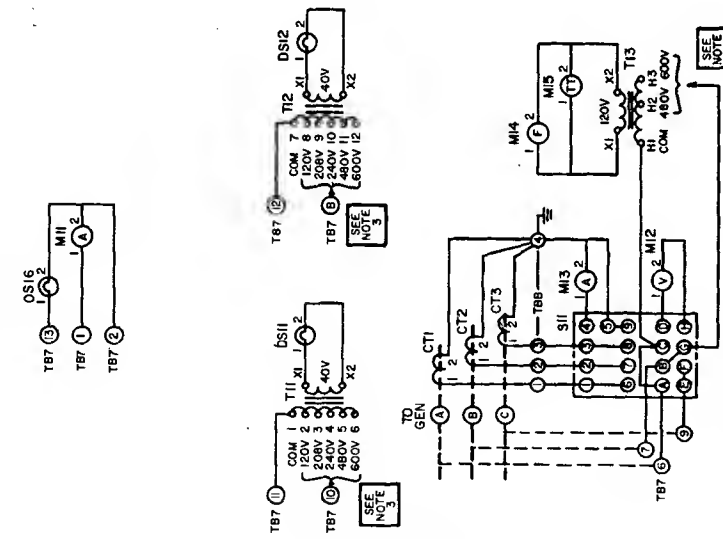
AT C } SPEC 8
AT D }
AT E }
208,240V 3PH
4W, 50/60 Hz

4-12-74
RMS
METER LAMP PANEL
(WIRING DIAGRAM)

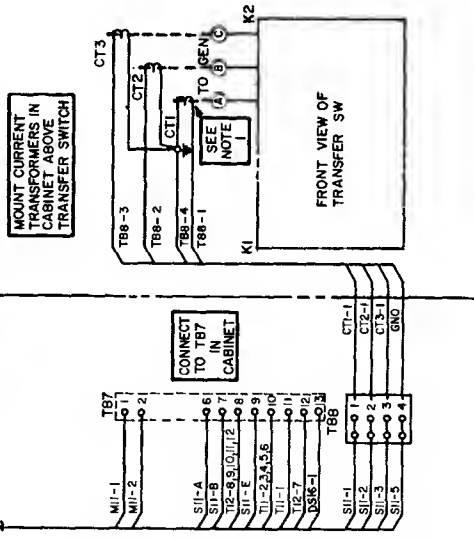
626-0127

REAR VIEW OF
METER PANEL

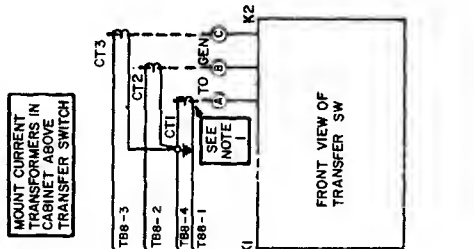
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



- NOTES:
1. CORRECT METER READING
2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 480V, CONNECT S11-G TO T13-H2
FOR 600V, CONNECT S11-G TO T13-H3
3. WIRE TRANSFORMER T11 & T12 AS FOLLOWS:
FOR 480V, CONNECT T87-10 TO T11-5
FOR 600V, CONNECT T87-10 TO T11-6
FOR 480V, CONNECT T87-10 TO T12-11
FOR 600V, CONNECT T87-10 TO T12-12

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2,3	302-0847	B	TRANSFORMER ASSY. CIR.
	302-0848	B	TRANSFORMER ASSY. CIR.
	302-0849	B	TRANSFORMER ASSY. CIR.
	302-0850	B	TRANSFORMER ASSY. CIR.
	302-0851	B	TRANSFORMER ASSY. CIR.
	302-0852	B	TRANSFORMER ASSY. CIR.
DS11	302-0145	A	LAMP - NORMAL 36V
DS12	302-0147	A	LAMP - EMERGENCY 36V
DS13-15	302-0141	A	3 LENS & BEZEL ASSY
DS16	302-0107	A	LAMP - OVERCRANK (4V)
MI1	302-0807	A	AMMETER - BAT CHARGER 0-2 AMP
MI2	302-0422	P	VOLT METER 0-600V (600V)
MI3	302-0423	P	VOLT METER 0-750V (600V)
MI4	302-0404	B	AMMETER - AC 0-35AMP (30)
MI5	302-0406	B	AMMETER - AC 0-75AMP (60)
	302-0408	B	AMMETER - AC 0-100AMP (100)
	302-0605	P	AMMETER - AC 0-200AMP (200)
MI4	302-0809	B	METER - FREQ POINTER 120V 50HZ
MI5	302-0468	P	METER - FREQ POINTER 120V 60HZ
MI5	302-0465	P	METER - RUNNING TIME 120V 50HZ
MI5	302-0465	P	METER - RUNNING TIME 120V 60HZ
S11	308-0022	B	SWITCH - VOLT & AMMETER
	332-0592	A	3 JUMPER
	98-2443	A	SILKSCREEN - SELECTOR SWITCH
T11,12	315-0374	C	TRANSFORMER ASSY - STEPDOWN
T13	315-0377	A	TRANSFORMER - STEPDOWN
T88	332-1517	A	MARKER STRIP
	338-0887	D	1 HARNESS - METER 3 PH
	338-0561	C	1 HARNESS - LAMPS (NORMAL & EMERGENCY)
	301-3507	C	1 PANEL - METER
	98-2412	D	1 SILKSCREEN - METER PANEL
	98-2445	A	1 LABEL - POWER ENTRY

METER - LAMP COMBINATION: 10

- CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT METER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT SW
SELECTOR SW
NORMAL & EMERGENCY LAMPS

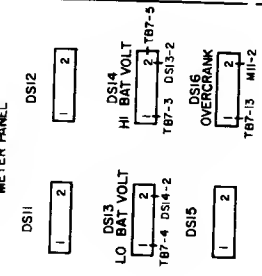
AMPERE	VOLTAGE	60 Hz	50 Hz
30	480V	-01	-11
60	600V	-02	-12
100	480V	-03	-13
200	600V	-04	-14
400	480V	-05	-15
	600V	-06	-16
	480V	-07	-17
	600V	-08	-18
	480V	-09	-19
	600V	-10	-20

THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

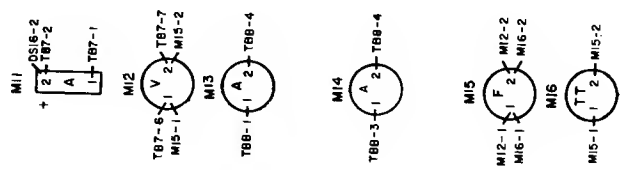
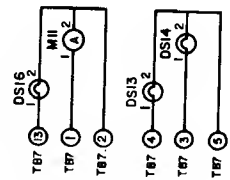
REV. 1	DATE	REV. 2	DATE
1	10/1/54	2	10/1/54
ONAN			
DIVISION OF BUSH-BERKELEY			
DATE 4-12-74 RMS 1741 CDR			
METER LAMP PANEL			
(WIRING DIAGRAM)			
AT 6 } SPEC 8			
480, 600V, 3PH, 50/60Hz			
4W.			
626-0128			

626-0130

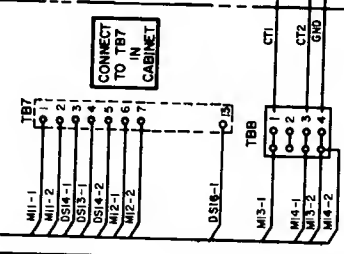
REAR VIEW OF
METER PANEL



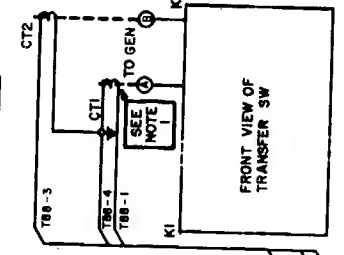
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



NOTES:
1. NO. OF PRI. TURNS REQUIRED FOR
CORRECT METER READING
30A 4 TURNS
60,100A 2 TURNS
200,400A 1 TURN

PARTS LIST

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2	302-0851	B	TRANSFORMER ASSY - CUR
	302-0852	B	TRANSFORMER ASSY - CUR
	302-0853	B	TRANSFORMER ASSY - CUR
	302-0854	B	TRANSFORMER ASSY - CUR
	302-0855	B	TRANSFORMER ASSY - CUR
DS11,2,3	322-0141	A	LENS & BEZEL ASSY
DS13	322-0142	A	LAMP - LO BAT VOLT (14V) (AT D & E)
DS14	322-0143	A	LAMP - LO BAT VOLT (28V) (AT C)
	322-0144	A	LAMP - HI BAT VOLT (14V) (AT D & E)
	322-0145	A	LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0107	A	LAMP - OVERCRANK (14V)
M11	302-0807	A	AMMETER - BAT CHARGER 0-2 AMP
M12	302-0421	P	VOLTMETER 0-300VAC
M13,14	302-0404	B	2 AMMETER - AC 0-35AMP
	302-0405	B	2 AMMETER - AC 0-75AMP
	302-0406	B	2 AMMETER - AC 0-100AMP
	302-0407	B	2 AMMETER - AC 0-200AMP
	302-0605	P	2 AMMETER - AC 0-400AMP
M15	302-0895	B	METER - FREQ POINTER 240V 50HZ
	302-0811	B	METER - FREQ POINTER 240V 60HZ
M16	302-0469	P	METER - RUNNING TIME 208/240V 50HZ
	302-0466	P	METER - RUNNING TIME 208/240V 60HZ
TBB	332-1517	A	MARKER STRIP
	33B-0884	D	HARNES - METER 1PH
	33B-0659	B	HARNES - LAMPS (BAT VOLTS)
	301-3508	C	PANEL - METER
	98-2413	D	SILKSCREEN - METER PANEL
	98-2445	A	LABEL - POWER SENTRY

METER - LAMP COMBINATION: II

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER

BATTERY VOLTAGE LAMPS

THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

AMPERE	AT C	AT D	AT E	AT F
30	-01	-06	-11	-16
60	-02	-07	-12	-17
100	-03	-08	-13	-18
200	-04	-09	-14	-19
400	-05	-10	-15	-20

626-0130

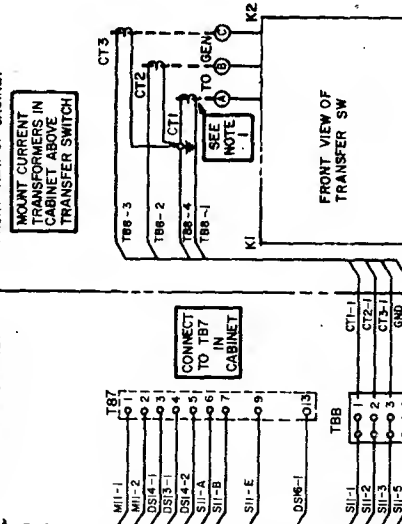
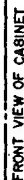
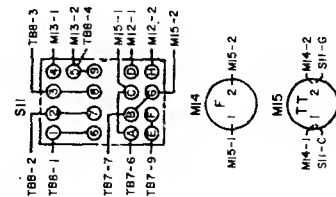
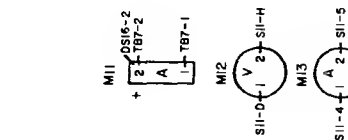
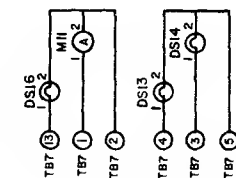
4-12-74

CDR

METER LAMP PANEL
(WIRING DIAGRAM)

240V, 2W, 120/240V, 3W, 1PH, 50/60 HZ

626-0130



NOTES:
1. NO OF PRI TURNS REQUIRED FOR
CORRECT METER READING

30A	4 TURNS
60,100A	2 TURNS
200,400A	1 TURN

REF DES	PART NO	QTY	DESCRIPTION
CT1-2,3	302-0847	8	TRANSFORMER ASSY-CUR (30)
	302-0848	B	TRANSFORMER ASSY-CUR (160)
	302-0849	B	TRANSFORMER ASSY-CUR (160)
	302-0850	B	TRANSFORMER ASSY-CUR (200)
	302-0855	B	TRANSFORMER ASSY-CUR (400)
DS1L2,15	302-0104	A	3 LENS & BEZEL ASSY
DS15	302-0104	A	LAMP-LO BAT VOLT 1(AV) (AT D & E)
	302-0106	A	LAMP-LO BAT VOLT 2(BV) (AT C)
DS14	302-0105	A	LAMP-HI BAT VOLT 1(AV) (AT D & E)
	302-0107	A	LAMP-HI BAT VOLT 2(BV) (AT C)
DS16	302-0107	A	LAMP-OVERCRANK (14V)
M1	302-0807	A	AMMETER-BAT CHARGE 0-2 AMP
M12	302-0421	P	VOLTMETER 0-300VAC
M13	302-0404	B	1 AMMETER -AC 0-35AMP (30)
	302-0406	B	1 AMMETER -AC 0-75AMP (60)
	302-0408	B	1 AMMETER -AC 0-100AMP (100)
	302-0411	P	1 AMMETER -AC 0-200AMP (200)
	302-0605	P	1 AMMETER -AC 0-400AMP (400)
M14	302-0894	B	METER-FREQ POINTER 20BV 50HZ
	302-0895	B	METER-FREQ POINTER 24BV 60HZ
	302-0810	B	METER-FREQ POINTER 20BV 50HZ
	302-0811	B	METER-FREQ POINTER 24BV 60HZ
M15	302-0469	P	1 METER-RUNNING TIME 20V/24V 50HZ
	302-0466	P	1 METER-RUNNING TIME 20V/24V 60HZ
S11	308-0022	B	1 SWITCH-VOLT & AMMETER
	332-0092	A	3 JUMPER
	9B-2443	A	1 SILKSCREEN-SELECTOR SWITCH
TBB	332-1517	A	1 MARKER STRIP
	338-0886	D	1 HARNESS-METER 3PH
	338-0859	B	1 HARNESS-LAMPS (BAT VOLTS)
	301-3507	C	1 PANEL-METER
9B-2412	D	1	SILKSCREEN-METER PANEL
9B-2443	A	1	1 LABEL-POWER SWITCH

**CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)**

FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
BATTERY VOLTAGE LAMPS

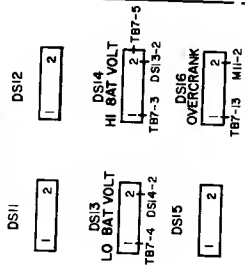
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY						
AMPERE	VOLTAGE	AT D & E 60 Hz	AT D & E 50 Hz	AT D & E 50 Hz	AT C 50 Hz	AT C 50 Hz
30	208V	- 01	- 11	- 21	- 31	
	240V	- 02	- 12	- 22	- 32	
	208V	- 03	- 13	- 23	- 33	
60	240V	- 04	- 14	- 24	- 34	
	208V	- 05	- 15	- 25	- 35	
	240V	- 06	- 16	- 26	- 36	
100	208V	- 07	- 17	- 27	- 37	
	240V	- 08	- 18	- 28	- 38	
	208V	- 09	- 19	- 29	- 39	
200	240V	- 10	- 20	- 30	- 40	
	208V	- 11	- 21	- 31	- 41	
	240V	- 12	- 22	- 32	- 42	
400	208V	- 13	- 23	- 33	- 43	
	240V	- 14	- 24	- 34	- 44	
	208V	- 15	- 25	- 35	- 45	

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

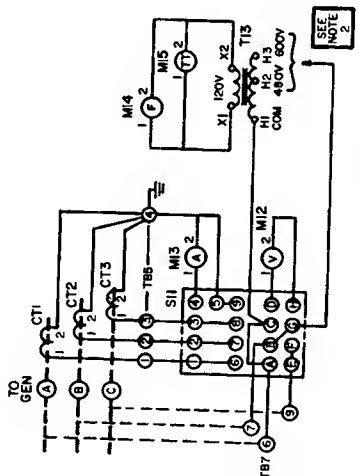
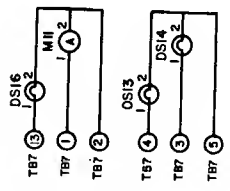
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626-0132

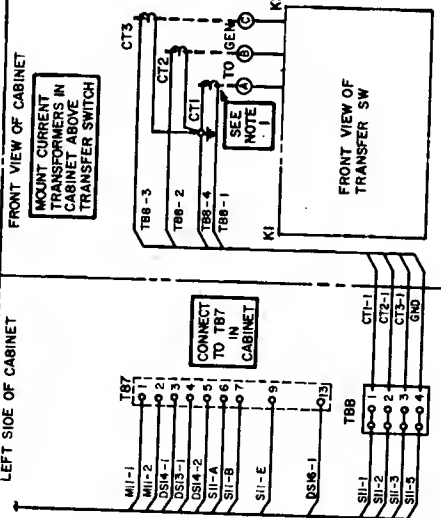
REAR VIEW OF
METER PANEL



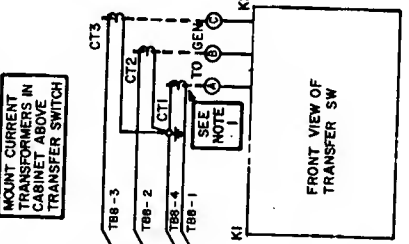
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



NOTES:
1. NO. OF PRI TURNS REQUIRED FOR
CORRECT METER READING
30A 100A 200A 400A
2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 480V, CONNECT S11-G TO T13-H2
FOR 600V, CONNECT S11-G TO T13-H3

PARTS LIST

REF. DES.	PART NO.	QTY	DESCRIPTION
CT1,2,3	302-0847	3	TRANSFORMER ASST-CUR
	302-0848	3	TRANSFORMER ASST-CUR
	302-0849	3	TRANSFORMER ASST-CUR
	302-0850	3	TRANSFORMER ASST-CUR
	302-0851	3	TRANSFORMER ASST-CUR
DS12,25	322-0141	3	LENS & BEZEL ASSY
DS13	322-0144	1	LAMP - LO BAT VOLT (14V) (AT D & E)
DS14	322-0145	1	LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0127	1	LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0107	1	LAMP - OVERCRANK (14V)
M11	302-0607	1	AMMETER - BAT CHARGER 0-2 AMP
M12	302-0422	1	VOLTMETER 0-600V (480V)
M13	302-0423	1	VOLTMETER 0-750V (600V)
M13	302-0404	1	AMMETER - AC 0-35AMP (30)
	302-0405	1	AMMETER - AC 0-75AMP (60)
	302-0406	1	AMMETER - AC 0-100AMP (100)
	302-0411	1	AMMETER - AC 0-200AMP (200)
M14	302-0685	1	METER - FREQ POINTER 120V 50HZ
M15	302-0685	1	METER - FREQ POINTER 120V 50HZ
M15	302-0468	1	METER - RUNNING TIME 120V 50HZ
S11	308-0022	1	SWITCH - VOLT & AMMETER
	332-0592	1	JUMPER
	98-2443	1	SILKSCREEN - SELECTOR SWITCH
T13	315-0377	1	TRANSFORMER - STEPDOWN
T88	332-1517	1	MARKER STRIP
	338-0887	1	HARNES - METER 3 PH
	338-0659	1	HARNES - LAMPS (BAT VOLTS)
	301-3507	1	PANEL - METER
	98-2412	1	SILKSCREEN - METER PANEL
	98-2445	1	LABEL - POWER ENTRY

626-0132

METER - LAMP COMBINATION: II

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
BATTERY VOLTAGE LAMPS

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

AMPERE	VOLTAGE	AT D & E 60 Hz	AT C 60 Hz	AT D & E 50 Hz	AT C 50 Hz
30	480V	-01	-11	-21	-31
	600V	-02	-12	-22	-32
60	480V	-03	-13	-23	-33
	600V	-04	-14	-24	-34
100	480V	-05	-15	-25	-35
	600V	-06	-16	-26	-36
200	480V	-07	-17	-27	-37
	600V	-08	-18	-28	-38
400	480V	-09	-19	-29	-39
	600V	-10	-20	-30	-40

REVISIONS

NO.	DATE	DESCRIPTION
1	4-11-74	RMS

DATE 4-11-74 BY RMS

AT C] SPEC B
AT D]
AT E]

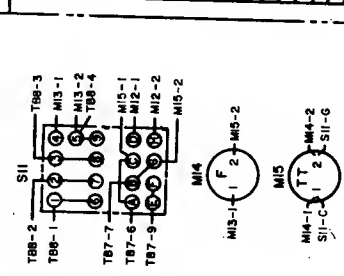
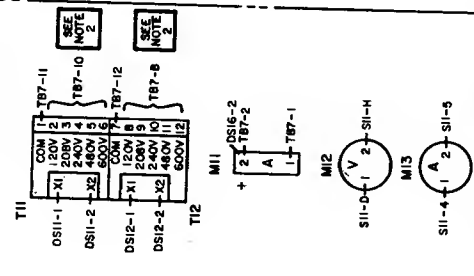
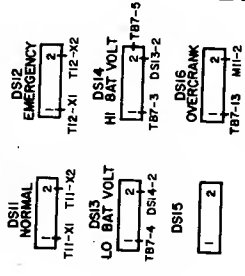
METER LAMP PANEL
(WIRING DIAGRAM)

480, 600V, 3PH, 50/60HZ
4W.

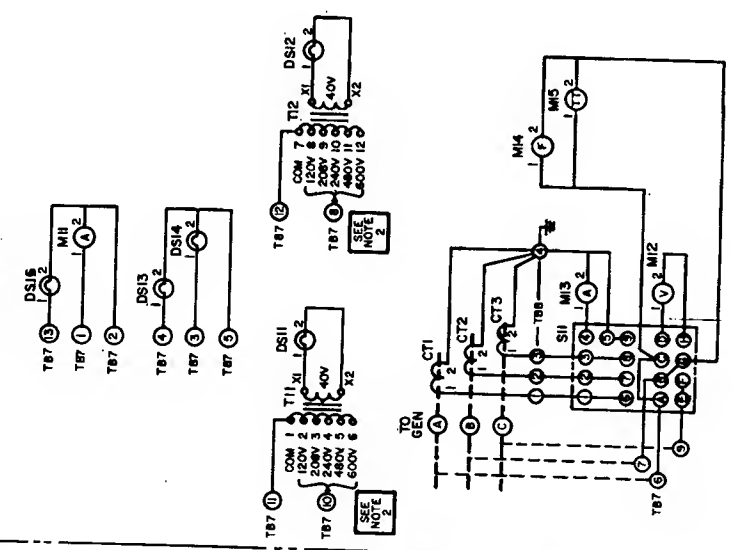
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626-0135

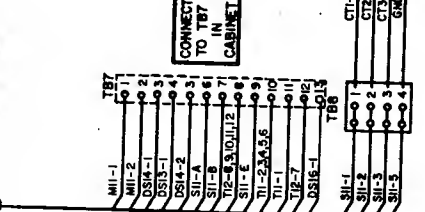
REAR VIEW OF
METER PANEL



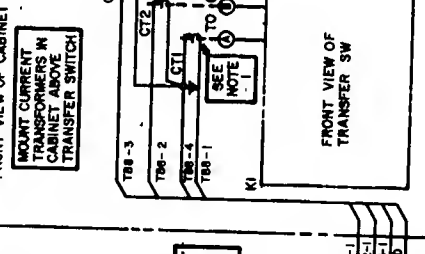
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



NOTES:
1. OF PNI TURNS REQUIRED FOR
CORRECT METERING
30A 4 TURNS
80,100A 2 TURNS
200,400A 1 TURN

2. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 208V, CONNECT T87-10 TO T11-3
FOR 240V, CONNECT T87-10 TO T11-4
FOR 240V, CONNECT T87-8 TO T12-10

PARTS LIST

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2,3	302-0847	1	TRANSFORMER ASSY-CUR
	302-0848	1	TRANSFORMER ASSY-CUR
	302-0849	1	TRANSFORMER ASSY-CUR
	302-0850	1	TRANSFORMER ASSY-CUR
	302-0851	1	TRANSFORMER ASSY-CUR
DS11	322-0146	1	LAMP-NORMAL 56V
DS12	322-0147	1	LAMP-EMERGENCY 56V
DS13	322-0114	1	LAMP-LO BAT VOLT (14V) (AT D & E)
DS14	322-0126	1	LAMP-LO BAT VOLT (14V) (AT D & E)
DS15	322-0127	1	LAMP-HI BAT VOLT (14V) (AT D & E)
DS16	322-0141	1	LAMP-HI BAT VOLT (28V) (AT C)
DS17	322-0107	1	LAMP-OVERCARG (14V)
MI1	302-0807	1	AMMETER-8AT CHARGER 0-2 AMP
MI2	302-0421	1	VOLTMETER 0-300VAC
MI3	302-0404	1	AMMETER-AC 0-35AMP
	302-0406	1	AMMETER-AC 0-75AMP
	302-0408	1	AMMETER-AC 0-100AMP
	302-0411	1	AMMETER-AC 0-200AMP
	302-0605	1	AMMETER-AC 0-400AMP
MI4	302-0894	1	METER-FREQ POINTER 208V 50HZ
	302-0895	1	METER-FREQ POINTER 240V 50HZ
	302-0896	1	METER-FREQ POINTER 208V 60HZ
	302-0897	1	METER-FREQ POINTER 240V 60HZ
MI5	302-0469	1	METER-RUNNING TIME 208/240V 50HZ
	302-0466	1	METER-RUNNING TIME 208/240V 60HZ
SI1	302-0392	1	SWITCH-VOLT 8 AMMETER
	302-0393	1	JUMPER
TI1,2	302-0374	1	SILKSCREEN-SELECTOR SWITCH
T88	302-1517	1	MARKER STRIP
	302-0898	1	HARNES-METER 3PH
	302-0899	1	HARNES-LAMPS (NORMAL & EMERGENCY)
	302-0899	1	HARNES-LAMPS (BAT VOLTS)
	301-3507	1	PANEL-METER
	98-2412	1	SILKSCREEN-METER PANEL
	98-2445	1	LABEL-POWER SENTRY

METER-LAMP COMBINATIONS: 12

- CHARGE AMMETER
- OVERCRANK LAMP (USE DN AT E ONLY)
- AMMETER
- FREQ METER
- RUNNING TIME METER
- CURRENT TRANSFORMER
- SELECTOR SWITCH
- NORMAL & EMERGENCY LAMPS
- BATTERY VOLTAGE LAMPS

AMPERE	VOLTAGE	AT D & E 60 Hz	AT C 60 Hz	AT D & E 50 Hz	AT C 50 Hz
30	208V	-01	-11	-21	-31
	240V	-02	-12	-22	-32
60	208V	-03	-13	-23	-33
	240V	-04	-14	-24	-34
100	208V	-05	-15	-25	-35
	240V	-06	-16	-26	-36
200	208V	-07	-17	-27	-37
	240V	-08	-18	-28	-38
400	208V	-09	-19	-29	-39
	240V	-10	-20	-30	-40

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

626-0135

4-11-74 RMS 37A JMC CDR

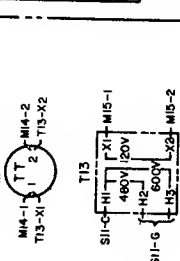
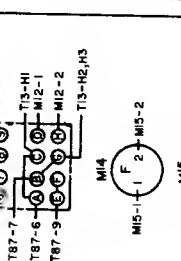
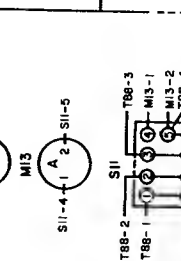
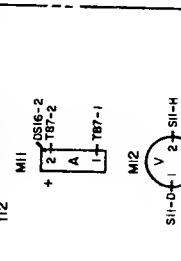
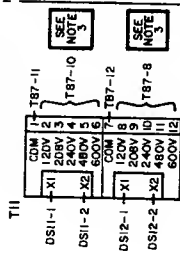
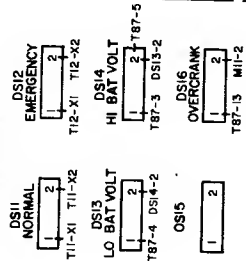
METER LAMP PANEL (WIRING DIAGRAM)

208,240V 3PH, 4W, 50/60Hz

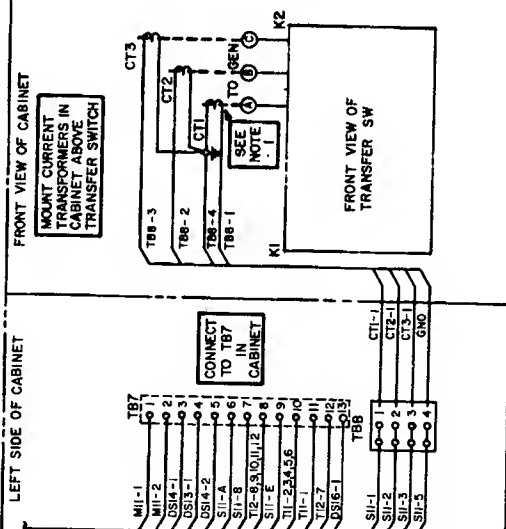
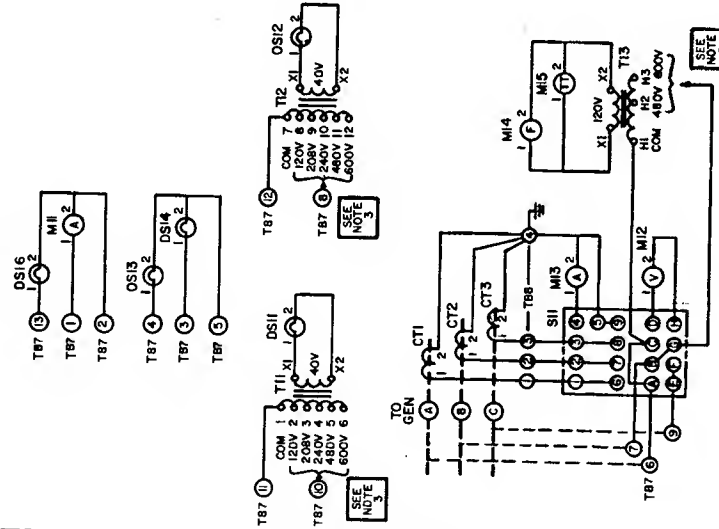
626-0135

626-0136

REAR VIEW OF
METER PANEL



SCHEMATIC



NOTES:
1. NO. OF PRI. TURNS REQUIRED FOR
CORRECT METER READING
30, 100A
200, 400A
1 TURN
2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 600V, CONNECT S11-G TO T13-H2
FOR 480V, CONNECT S11-G TO T13-H3
FOLLOWS.
3. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 480V, CONNECT T11-10 TO T11-5
FOR 600V, CONNECT T11-10 TO T11-6
FOR 480V, CONNECT T12-8 TO T12-12
FOR 600V, CONNECT T12-8 TO T12-12

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2,3	302-0847	B	TRANSFORMER ASSY-CUR
	302-0848	B	TRANSFORMER ASSY-CUR
	302-0849	B	TRANSFORMER ASSY-CUR
	302-0850	B	TRANSFORMER ASSY-CUR
	302-0855	A	TRANSFORMER ASSY-CUR
DS11	322-0846	A	LAMP-NORMAL 56V
DS12	322-0147	A	LAMP-EMERGENCY 56V
DS13	322-0144	A	LAMP-LO BAT VOLT (14V) AT 0.8 E
DS14	322-0126	A	LAMP-LO BAT VOLT (28V) AT C
DS15	322-015	A	LAMP-HI BAT VOLT (28V) AT C
DS16	322-0127	A	LAMP-HI BAT VOLT (28V) AT C
DS17	322-0141	A	LENS & BEZEL ASSY
DS18	322-0607	A	LAMP-OVERCRANK (14V)
M1	302-0422	P	AMMETER-BAT CHARGER 0-2 AMP
M2	302-0423	P	VOLTMETER 0-600V (480V)
M3	302-0404	B	AMMETER-AC 0-35AMP (130)
	302-0406	B	AMMETER-AC 0-75AMP (160)
	302-0408	B	AMMETER-AC 0-100AMP (100)
	302-0411	P	AMMETER-AC 0-200AMP (200)
	302-0605	P	AMMETER-AC 0-400AMP (400)
M14	302-0893	B	METER-FREQ POINTER 120V 50Hz
M15	302-0899	B	METER-FREQ POINTER 120V 50Hz
M16	302-0458	B	METER-RUNNING TIME 120V 60Hz
M17	302-0459	B	METER-RUNNING TIME 120V 60Hz
S11	308-0022	B	SWITCH-VOLT & AMMETER
	302-0592	A	JUMPER
	302-0593	A	JUMPER
T11,12	98-2445	A	SILKSCREEN-SELECTOR SWITCH
T13	315-0374	C	TRANSFORMER ASSY-STEPDOWN
T14	315-0377	A	TRANSFORMER-STEPDOWN
T15	332-1517	A	MARKER STRIP
	338-0687	D	HARNES-METER 3 PH
	338-0688	C	HARNES-LAMPS (NORMAL & EMERGENCY)
	338-0659	B	HARNES-LAMPS (BAT VOLTS)
	301-3507	C	PANEL-METER
	98-2412	D	SILKSCREEN-METER PANEL
	98-2445	A	LABEL-POWER ENTRY

626-0136

METER - LAMP COMBINATION: 12
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
RUNNING TIME METER
CURRENT METER
SELECTOR SWITCH
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

AMPERE	THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
	AT D & E 60 Hz	AT C 60 Hz	AT D & E 50 Hz	AT C 50 Hz
30	480V -01	-11	-21	-31
60	600V -02	-12	-22	-32
100	480V -03	-13	-23	-33
200	600V -04	-14	-24	-34
400	480V -05	-15	-25	-35
	600V -06	-16	-26	-36
	480V -07	-17	-27	-37
	600V -08	-18	-28	-38
	480V -09	-19	-29	-39
	600V -10	-20	-30	-40

626-0136

4-11-74

626-0136

626-0136

626-0161 REV. C

REAR VIEW OF METER PANEL

DS11
1 2

DS12
1 2

DS13
1 2

DS14
1 2

DS15
1 2

DS16 OVERCRANK
1 2
T87-13 M11-2

SCHEMATIC

626-0161

LEFT SIDE OF CABINET

NOTES:

1. USE RESISTOR WITH RUNNING TIME METER ON 600V ONLY

REF. DES. **PART NO.** **QTY.** **DESCRIP. ON**

DS11-13	302-0141	A	5	LENS & BEZEL ASSY
DS16	322-0107	A	1	LAMP - OVERCRANK (14V)
M11	302-0807	A	1	ANMETER - BAT CHARGER 0-2 AMP
M12	302-0465	P	1	METER - RUNNING TIME (120V/60HZ)
	302-0466	P	1	METER - RUNNING TIME (240V/60HZ)
	302-0467	P	1	METER - RUNNING TIME (480V/60HZ)
	304-0536	A	1	RESISTOR, 500Ω, 50W (600V/60HZ)
	302-0468	P	1	METER - RUNNING TIME (120V/150HZ)
	302-0469	P	1	METER - RUNNING TIME (240V/150HZ)
	302-0470	P	1	METER - RUNNING TIME (480V/150HZ)
	339-0883	C	1	HARNES - METER
	301-3505	C	1	PANEL - METER
	98-2413	D	1	SILKSCREEN - METER PANEL
	98-2445	A	1	LABEL - POWER METER

METER - LAMP COMBINATION 13

CHARGE ANMETER
OVERCRANK LAMP (USE ON AT E ONLY)
RUNNING TIME METER

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

HERTZ	VOLTAGE	DASH NO
60	120V	-01
60	240V	-02
60	480V	-03
60	600V	-04
50	120V	-05
50	240V	-06
50	480V	-07

626-0161 REV. C

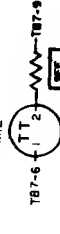
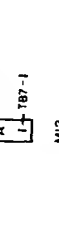
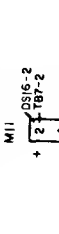
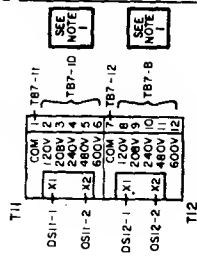
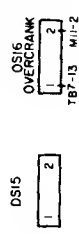
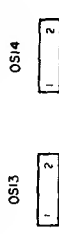
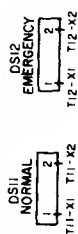
DATE 7-18-74 BY DFD JTM/VMT CDR

MODEL AT C } SPEC B
AT E }
METER LAMP PANEL
(WIRING DIAGRAM)

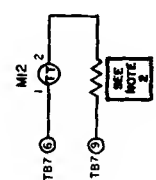
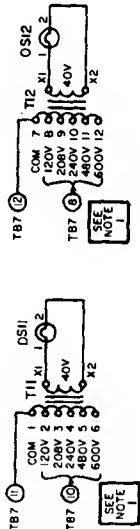
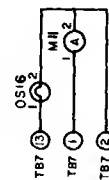
120, 240, 480, 600V
1 B 3PH 50/60HZ

626-0162

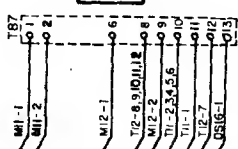
REAR VIEW OF
METER PANEL



SCHEMATIC



LEFT SIDE OF CABINET



NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS

FOR 120V, CONNECT T11-0 TO T11-2
T11-1 TO T11-3
T11-4 TO T11-5
T11-6 TO T11-7
T11-8 TO T11-9
T11-10 TO T11-11
T11-12 TO T11-13

2. USE RESISTOR WITH RUNNING
TIME METER ON 600V ONLY

THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

HERTZ	VOLTAGE	DASH NO
60	120V	-01
60	240V	-02
60	480V	-03
60	800V	-04
50	120V	-05
50	240V	-06
50	480V	-07

DISC 626-0162

REF DES PART NO QTY

DS11 322-0146 A 1 LAMP-NORMAL 56V
DS12 322-0147 A 1 LAMP-EMERGENCY 56V

DS13-15 322-0141 A 3 LENS & BEZEL ASSY
DS16 322-0107 A 1 LAMP-OVERCRANK (14V)
MI1 302-0807 A 1 AMMETER-BAT CHARGER D-2 AMP
MI2 302-0465 P 1 METER-RUNNING TIME (120V) (60HZ)
302-0466 P 1 METER-RUNNING TIME (240V) (60HZ)
302-0467 P 1 METER-RUNNING TIME (480V) (60HZ)
304-0536 A 1 RESISTOR, 9000Ω 50W (600V) (60HZ)
(USE WITH 302-0465 RTM ON 600V)

302-0468 P 1 METER-RUNNING TIME (120V) (50HZ)
302-0469 P 1 METER-RUNNING TIME (240V) (50HZ)
302-0470 P 1 METER-RUNNING TIME (480V) (50HZ)

626-0162

T11-12 315-0374 C 1 TRANSFORMER ASSY-STEPDOWN
338-0883 C 1 HARNESS-METER
338-0661 C 1 HARNESS-LAMP(S) (NORMAL & EMERGENCY)

301-3505 C 1 PANEL-METER
98-2413 D 1 SILKSCREEN-METER PANEL
98-2445 A 1 LABEL-POWER SENTRY

METER-LAMP COMBINATION 14

CHARGE ANMMETER
OVERCRANK LAMP (USE DN AT E ONLY)
RUNNING TIME METER
NORMAL & EMERGENCY LAMPS

REV	DATE	BY	CHKD
1	7-18-74	DRD	DRD
DIVISION OF QUAL ASSURANCE			
METER LAMP PANEL (WIRING DIAGRAM)			
AT C	SPEC. 8	120, 240, 480, 600V	50/60Hz
AT D		1 B 3PH	
AT E			
626-0162			C

626-0163

REAR VIEW OF
METER PANEL

626-0163

SCHEMATIC

626-0163

LEFT SIDE OF CABINET

NOTES:

- USE RESISTOR WITH RUNNING TIME METER ON 600V ONLY

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

HERTZ	VOLTAGE	DASH NO
60	120V	-01
60	240V	-02
60	480V	-03
60	600V	-04
50	120V	-05
50	240V	-06
50	480V	-07

626-0163

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
RUNNING TIME METER

BATTERY VOLTAGE LAMPS

626-0163

METER - LAMP COMBINATION IS

REF DES	PART NO	QTY	DESCRIPTION
DS11/12/13	322-0141	A	LENS & BEZEL ASSY
DS13	322-0114	A	LAMP - LO BAT VOLT (14V) (AT D & E)
DS14	322-0126	A	LAMP - LO BAT VOLT (28V) (AT C)
DS14	322-0115	A	LAMP - HI BAT VOLT (14V) (AT D & E)
DS14	322-0127	A	LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0107	A	LAMP - OVERCRANK (14V)
M11	302-0807	A	AMMETER - BAT CHARGER 0-2 AMP
M12	302-0465	P	METER - RUNNING TIME (120V) (60Hz)
	302-0466	P	METER - RUNNING TIME (240V) (60Hz)
	302-0467	P	METER - RUNNING TIME (480V) (60Hz)
	304-0436	A	RESISTOR, 50001 50W (600V) (60Hz)
	302-0468	P	METER - RUNNING TIME (120V) (50Hz)
	302-0469	P	METER - RUNNING TIME (240V) (50Hz)
	302-0470	P	METER - RUNNING TIME (480V) (50Hz)
	338-0863	C	HARNES - METER
	338-0659	B	HARNES - LAMPS (BAT VOLTS)
	301-3505	C	PANEL - METER
	98-2413	D	SILKSCREEN - METER PANEL
	98-2445	A	LABEL - POWER SENTRY

626-0163

REVISIONS

REV	DATE	DESCRIPTION
1	7-18-74	ORIGINAL

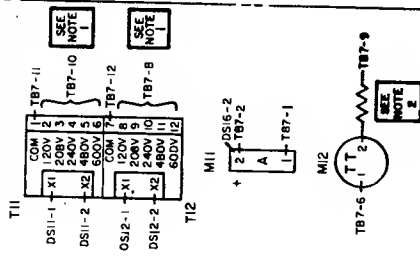
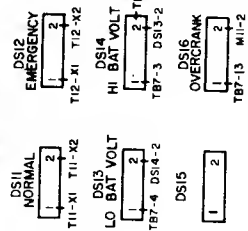
DATE: 7-18-74 BY: DFD FOR: CDR

DESIGNED BY: METER LAMP PANEL (WIRING DIAGRAM)

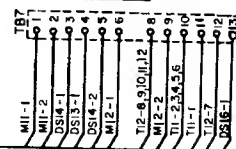
TESTED BY: 120, 240, 480, 600V 1 & 3PH 50/60 Hz

626-0163

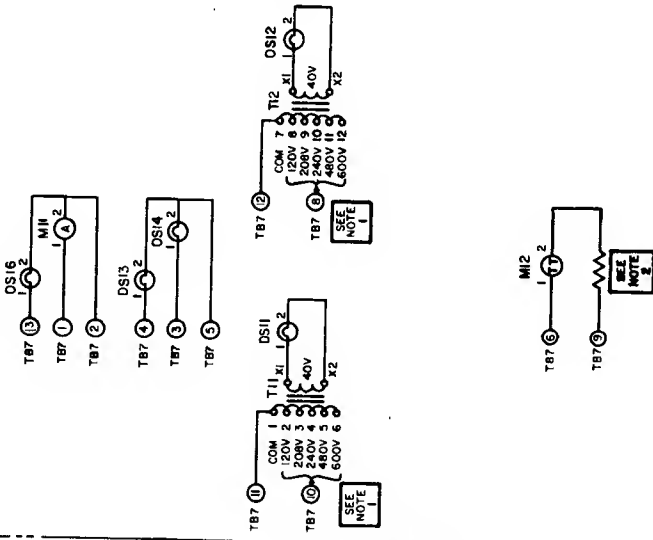
626-0164

REAR VIEW OF
METER PANEL

LEFT SIDE OF CABINET



SCHEMATIC



NOTE:
1. WIRE TRANSFORMER T11 & T12 AS FOLLOWS

FOR 120V, CONNECT T11-B TO T11-2
T12-B TO T12-2
FOR 240V, CONNECT T11-B TO T11-4
T12-B TO T12-4

2. USE RESISTOR WITH RUNNING TIME METER ON 600V ONLY

REF. DES. PART NO. QTY. DESCRIPTION

REF. DES.	PART NO.	QTY.	DESCRIPTION
DS11	322-0146	A	LAMP - NORMAL 56V
DS12	322-0147	A	LAMP - EMERGENCY 56V
DS13	322-0148	A	LAMP - LO BAT VOLT (14V) (AT D.B.E)
DS14	322-0149	A	LAMP - HI BAT VOLT (14V) (AT D.B.E)
DS15	322-0150	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS16	322-0151	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS17	322-0152	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS18	322-0153	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS19	322-0154	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS20	322-0155	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS21	322-0156	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS22	322-0157	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS23	322-0158	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS24	322-0159	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS25	322-0160	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS26	322-0161	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS27	322-0162	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS28	322-0163	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS29	322-0164	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS30	322-0165	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS31	322-0166	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS32	322-0167	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS33	322-0168	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS34	322-0169	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS35	322-0170	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS36	322-0171	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS37	322-0172	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS38	322-0173	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS39	322-0174	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS40	322-0175	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS41	322-0176	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS42	322-0177	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS43	322-0178	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS44	322-0179	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS45	322-0180	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS46	322-0181	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS47	322-0182	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS48	322-0183	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS49	322-0184	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS50	322-0185	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS51	322-0186	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS52	322-0187	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS53	322-0188	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS54	322-0189	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS55	322-0190	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS56	322-0191	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS57	322-0192	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS58	322-0193	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS59	322-0194	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS60	322-0195	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS61	322-0196	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS62	322-0197	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS63	322-0198	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS64	322-0199	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS65	322-0200	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS66	322-0201	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS67	322-0202	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS68	322-0203	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS69	322-0204	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS70	322-0205	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS71	322-0206	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS72	322-0207	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS73	322-0208	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS74	322-0209	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS75	322-0210	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS76	322-0211	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS77	322-0212	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS78	322-0213	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS79	322-0214	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS80	322-0215	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS81	322-0216	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS82	322-0217	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS83	322-0218	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS84	322-0219	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS85	322-0220	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS86	322-0221	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS87	322-0222	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS88	322-0223	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS89	322-0224	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS90	322-0225	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS91	322-0226	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS92	322-0227	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS93	322-0228	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS94	322-0229	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS95	322-0230	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS96	322-0231	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS97	322-0232	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS98	322-0233	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS99	322-0234	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)
DS100	322-0235	A	LAMP - HI BAT VOLT (28V) (AT D.B.E)

626-0164

TRANSFORMER ASSY STEPDOWN
HARNESS-METER
HARNESS-LAMPS (NORMAL & EMERGENCY)
HARNESS-LAMPS (BAT VOLTS)
PANEL-METER
SILKSCREEN-METER PANEL
LABEL-POWER SENTRY

CHARGE AMMETER
OVERCRANK LAMP (USE DN AT E ONLY)
RUNNING TIME METER
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

HERTZ	VOLTAGE	DASH NO
60	120V	-01
60	240V	-02
60	480V	-03
60	600V	-04
50	120V	-05
50	240V	-06
50	480V	-07

REV. 1	DATE 7-18-74	BY DFD	CHK CDR
DIVISION OF OMAH CORPORATION		METER LAMP PANEL (WIRING DIAGRAM)	
626-0164		626-0164 C	

626-0009 REV C

REAR VIEW OF
METER PANEL

DS11
1 2

DS12
1 2

DS13
1 2

DS14
1 2

DS15
1 2

DS16
OVERCRANK
T86-9 M11-2
1 2

M11 DS16-2
+ 2 T87-2
A 1
T87-1

SCHEMATIC

626-0009

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)

LEFT SIDE OF CABINET

DS16-1
CONNECT TO T86-9
CONTROL ACCESS PANEL
LOCATED IN CABINET

T87
M11-1
M11-2
CONNECT TO T87
IN
CABINET

THIS INFORMATION
IS FOR
MANUFACTURERS
USE ONLY

MODEL	DASH NO
AT C,D,B,E	-01

REF. DES.	PART NO	QTY	DESCRIPTION
DS11-15	322-0141	A 5	LENS & BEZEL ASSY
DS16	322-0107	A 1	LAMP - OVERCRANK (14V)
M11	302-DB07	A 1	AMMETER-BAT CHARGER 0-2 AMP
626-0009			
338-0679	D 1		HARNES-METER
301-3504	C 1		PANEL-METER
98-2412	D 1		SILKSCREEN-METER PANEL
98-2445	A 1		LABEL-POWER ENTRY
METER - LAMP COMBINATION 01			

626-0009 REV C

REMOVED FROM MODEL NO. 1220-0273

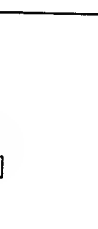
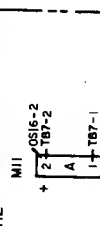
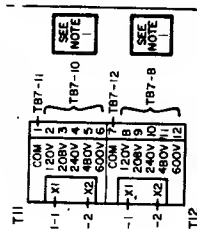
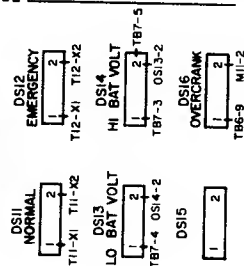
DATE 1-30-73 BY JTM

METER LAMP PANEL
(WIRING DIAGRAM)

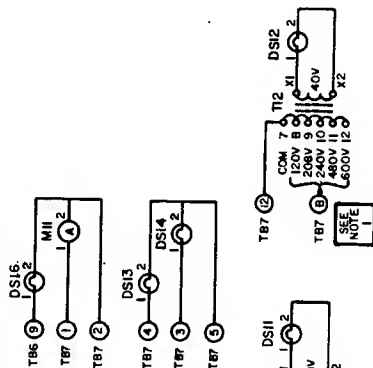
120,208,240,480,600V
50/60 Hz

626-0012

REV C

REAR VIEW OF
METER PANEL

SCHEMATIC



NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 120V, CONNECT T11-1 TO T11-2
FOR 208V, CONNECT T11-1 TO T11-3
FOR 240V, CONNECT T11-1 TO T11-4
FOR 480V, CONNECT T11-1 TO T11-5
FOR 600V, CONNECT T11-1 TO T11-6
FOR 120V, CONNECT T12-1 TO T12-2
FOR 208V, CONNECT T12-1 TO T12-3
FOR 240V, CONNECT T12-1 TO T12-4
FOR 480V, CONNECT T12-1 TO T12-5
FOR 600V, CONNECT T12-1 TO T12-6

626-0012

REF. DES.	PART NO.	QTY.	DESCRIPTION
DS11	322-0146	A	LAMP-NORMAL 56V
DS12	322-0147	A	LAMP-EMERGENCY 56V
DS13	322-0114	A	LAMP-LO BAT VOLT (14V) (AT D & E)
DS14	322-0126	A	LAMP-HI BAT VOLT (28V) (AT C)
DS15	322-0127	A	LAMP-HI BAT VOLT (14V) (AT D & E)
DS16	322-0141	A	LENS & BEZEL ASSY
M11	302-0807	A	AMMETER-BAT CHARGER (14V)
T11	315-0374	C	TRANSFORMER ASSY-STEPDOWN
T12	315-0374	C	TRANSFORMER ASSY-STEPDOWN
T13	338-0679	D	HARNES-METER
T14	338-0661	C	HARNES-LAMPS (NORMAL & EMERGENCY)
T15	338-0659	B	HARNES-LAMPS (BAT VOLTS)
T16	301-3504	C	PANEL-METER
T17	98-2412	D	SILKSCREEN-METER PANEL
T18	98-2445	A	LABEL-POWER SENTRY

METER-LAMP COMBINATION: 04

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

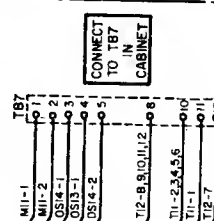
THIS INFORMATION
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MANUFACTURERS
USE ONLY

MODEL DASH NO

AT D & E -01

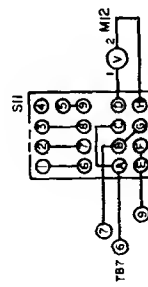
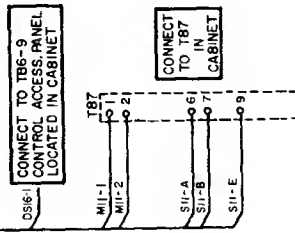
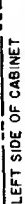
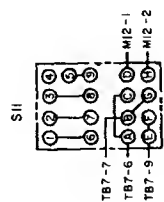
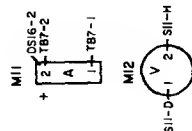
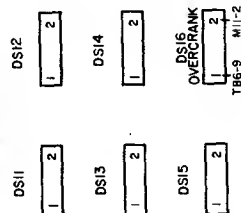
AT C -02

LEFT SIDE OF CABINET

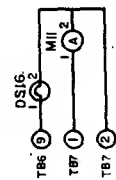
CONNECT TO TB6-9
CONTROL ACCESS PANEL
LOCATED IN CABINET

A REMOVED FROM MODEL NO. 626-0012	
REV. 1-30-73	REV. 1-30-73
DATE 1-30-73	DATE 1-30-73
BY JTM	BY JTM
MODEL	MODEL
AT C	AT C
AT D	AT D
AT E	AT E
METER LAMP PANEL (WIRING DIAGRAM)	
SERIAL NO. 120,208,240,480,600V	
50/60Hz	
626-0012	
REV. C	



REAR VIEW OF
METER PANEL

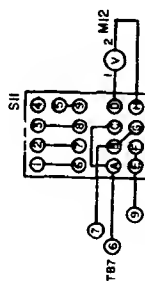
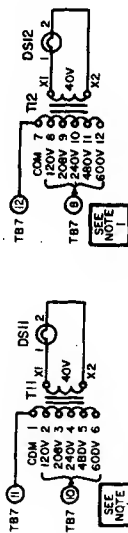
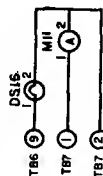
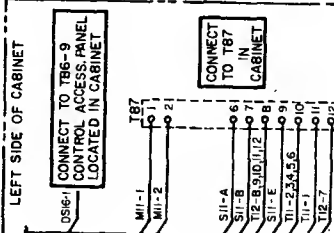
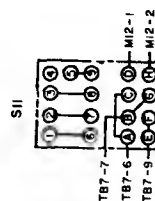
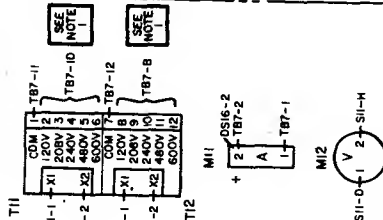
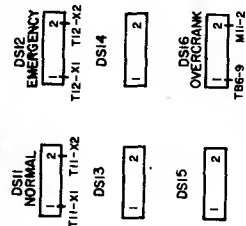
SCHEMATIC

[illegible]

TER - LAMP COMBINATION: Q5
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	VOLTAGE	DASH NO
	208-240V	-01
	480V	-02
	600V	-03

[illegible]



LEFT SIDE OF CABINET

CONNECT TO TB6-9
CONTROL ACCESS. PANEL

CONNECT
TO T87
IN
CABINET

NOTE:
1. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:

FOR 208V, CONNECT
T87-10 TO T11-3
T87-8 TO T12-9
FOR 240V, CONNECT
T87-10 TO T11-4
T87-8 TO T12-10
FOR 480V, CONNECT
T87-10 TO T11-5
T87-8 TO T12-11
FOR 600V, CONNECT
T87-8 TO T12-12

REF. DES.	PART NO.	PARTS LIST		DESCRIPTION
		REF.	QTY.	
DS11	322-0146	A	1	LAMP - NORMAL 56V
DS12	322-0147	A	1	LAMP - EMERGENCY 56V
DS13-15	322-0141	A	3	LENS & BEZEL ASSY
DS16	322-0007	A	1	LAMP - OVERCRANK (H/V)
M11	302-0807	A	1	AMMETER-BAT CHARGER 0-2 AMP
M12	302-0431	P	1	VOLTMETER 0-300VAC (208-240V)
	302-0432	P	1	VOLTMETER 0-600VAC (480V)
	302-0433	P	1	VOLTMETER 0-750VAC (600V)
S11	308-0022	B	1	SWITCH - VOLTMETER
	332-0392	A	3	JUMPER
	302-0433	A	1	SILKSCREEN - SELECTOR SWITCH
T11/12	315-0374	C	1	TRANSFORMER ASSY-STEPDOWN
	338-0662	D	1	HARNES - METER 3PH
	338-0661	C	1	HARNES - LAMPS (NORMAL & EMERGENCY)
	301-3506	C	1	PANEL - METER
	98-2412	D	1	SILKSCREEN - METER PANEL
	98-2445	A	1	LABEL - POWER SENTRY

METER - LAMP COMBINATION: 06

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW
NORMAL & EMERGENCY LAMPS

**THIS INFORMATION
IS FOR
MANUFACTURERS
USE ONLY**

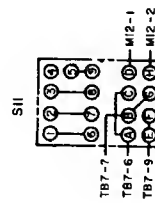
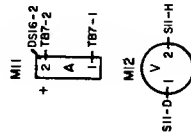
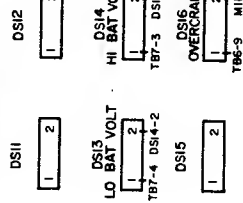
VOLTAGE	DASH NO
208-240V	-01
480V	-02
600V	-03

[illegible]

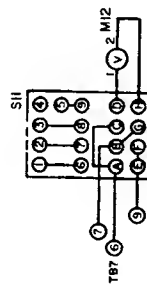
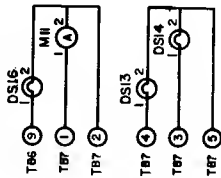
626-0018

REV C

REAR VIEW OF
METER PANEL

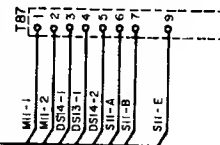


SCHEMATIC



LEFT SIDE OF CABINET

CONNECT TO TB6-9
CONTROL ACCESS PANEL
LOCATED IN CABINET



CONNECT TO TB7
IN
CABINET

REF. DES.	PART NO.	QTY.	DESCRIPTION
DS12.5	322-0141	A	3 LENS & BEZEL ASSY
DS13	322-0114	A	1 LAMP - LO BAT VOLT (14V) (AT D.B.E)
DS14	322-0126	A	1 LAMP - LO BAT VOLT (28V) (AT C)
DS15	322-0115	A	1 LAMP - HI BAT VOLT (14V) (AT D.B.E)
DS16	322-0127	A	1 LAMP - HI BAT VOLT (28V) (AT C)
DS17	322-0107	A	1 LAMP - OVERCRANK (14V)
M11	302-0807	A	1 AMMETER - BAT CHARGER 0-2 AMP
M12	302-0421	P	1 VOLTMETER 0-300VAC (208-240V)
	302-0422	P	1 VOLTMETER 0-600VAC (480V)
	302-0423	P	1 VOLTMETER 0-750VAC (600V)
S11	308-0022	B	1 SWITCH - VOLTMETER
	302-0592	A	3 JUMPER
	98-2443	A	1 SILKSCREEN - SELECTOR SWITCH
	338-0662	D	1 HARNESS - METER 3PH
	338-0659	B	1 HARNESS - LAMPS (BAT VOLTS)
	301-3506	C	1 PANEL - METER
	98-2412	D	1 SILKSCREEN - METER PANEL
	98-2445	A	1 LABEL - POWER SENTRY

626-0018

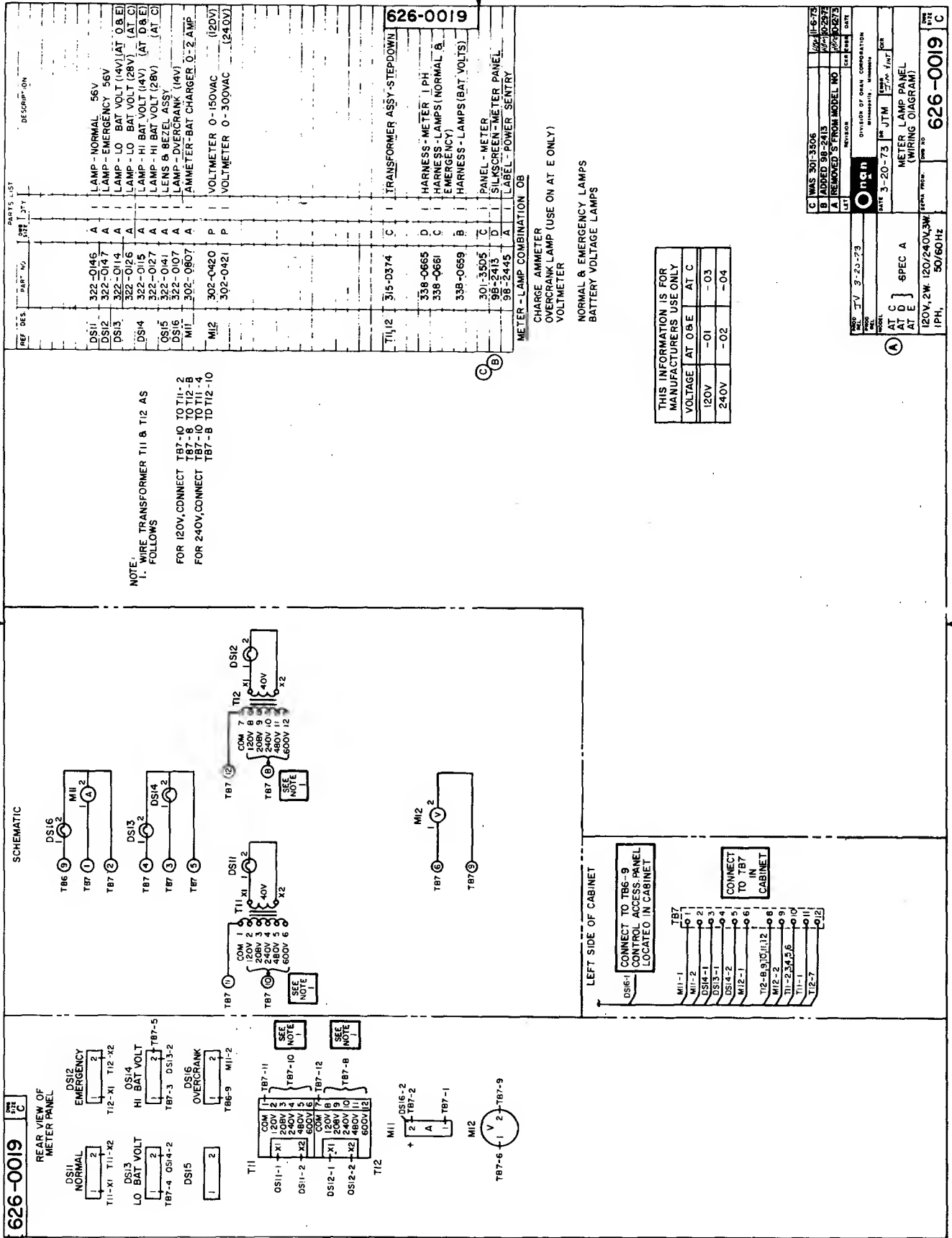
METER - LAMP COMBINATION: 07

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SW

BATTERY VOLTAGE LAMPS

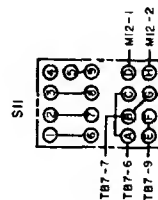
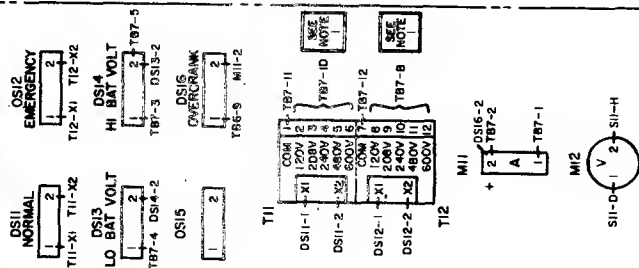
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY	
VOLTAGE	AT DBE AT C
208-240V	-01 -04
480V	-02 -05
600V	-03 -06

A. REMOVED'S FROM MODEL NO. 1/22-0273	
REV. NO. 1/22-0273	DATE 1-30-73
DIVISION OF ORIN CORPORATION	
DATE 1-30-73	
JTM	
METER LAMP PANEL	
(WIRING DIAGRAM)	
208-240, 480, 600V	3PH, 4W, 50/60HZ
626-0018	

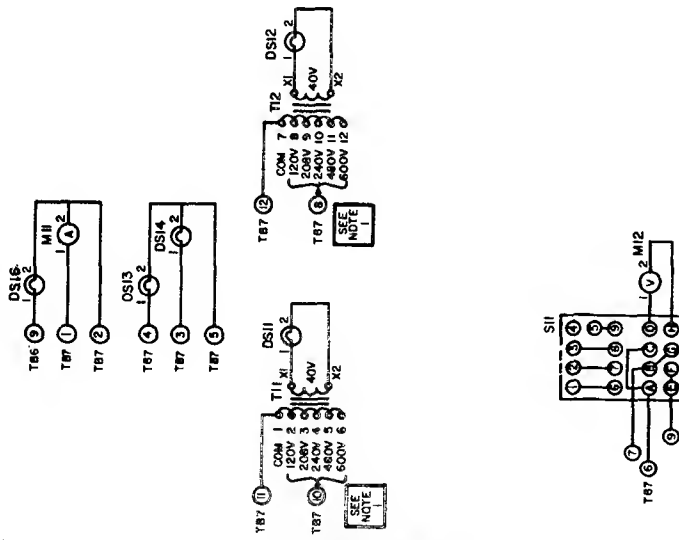


626-0020

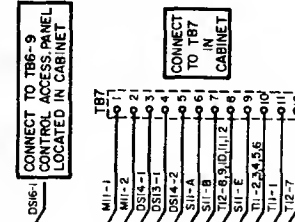
REAR VIEW OF
METER PANEL



SCHEMATIC



LEFT SIDE OF CABINET



THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
VOLTAGE	AT DSE	AT C	AT E
208-240V	-01	-04	
480V	-02	-05	
600V	-03	-06	

REF. DES.	PART NO.	QTY	DESCRIPTION
DS12	322-0146	A	LAMP - NORMAL 56V
DS13	322-0147	A	LAMP - EMERGENCY 56V
DS14	322-0114	A	LAMP - LO BAT VOLT (4V) (AT DSE)
DS15	322-0126	A	LAMP - LO BAT VOLT (28V) (AT C)
DS16	322-0115	A	LAMP - HI BAT VOLT (4V) (AT DSE)
DS17	322-0127	A	LAMP - HI BAT VOLT (28V) (AT C)
DS18	322-0141	A	LENS & BEZEL ASSY (4V)
DS19	322-0107	A	LAMP - OVERCRANK (4V)
DS20	302-0807	A	ANMETER - BAT CHARGER 0-2 AMP
DS21	302-0421	P	VOLTMETER 0-300VAC (208 240V)
DS22	302-0422	P	VOLTMETER 0-600VAC (480V)
DS23	302-0423	P	VOLTMETER 0-750VAC (600V)
DS24	308-0022	B	SWITCH - VOLTMETER
DS25	332-0592	A	3 JUMPER
DS26	98-2443	A	SILKSCREEN - SELECTOR SWITCH
DS27	315-0374	C	TRANSFORMER ASSY - STEPODOWN
DS28	338-0662	D	HARNES - METER 3PH
DS29	338-0661	C	HARNES - LAMPS (NORMAL & EMERGENCY)
DS30	338-0659	B	HARNES - LAMPS (BAT VOLTS)
DS31	301-3506	C	PANEL - METER
DS32	98-2412	D	SILKSCREEN - METER PANEL
DS33	98-2445	A	LABEL - POWER ENTRY
DS34			METER - LAMP COMBINATION 08

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
SELECTOR SWITCH
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

626-0020

REMOVED FROM MODEL NO.	DATE
626-0020	1-30-73
REASON FOR REMOVAL	REMARKS
AT 0	SPEC A
AT 1	626-0020
AT 2	626-0020
AT 3	626-0020
AT 4	626-0020
AT 5	626-0020
AT 6	626-0020
AT 7	626-0020
AT 8	626-0020
AT 9	626-0020
AT 10	626-0020
AT 11	626-0020
AT 12	626-0020
AT 13	626-0020
AT 14	626-0020
AT 15	626-0020
AT 16	626-0020
AT 17	626-0020
AT 18	626-0020
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AT 92	626-0020
AT 93	626-0020
AT 94	626-0020
AT 95	626-0020
AT 96	626-0020
AT 97	626-0020
AT 98	626-0020
AT 99	626-0020
AT 100	626-0020

[illegible]



©

626-0023

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY		
AMPERE	VOLTAGE	50 Hz 60 Hz
30	208V	- 01 - 11
	240V	- 02 - 12
60	208V	- 03 - 13
	240V	- 04 - 14
100	208V	- 05 - 15
	240V	- 06 - 16
200	208V	- 07 - 17
	240V	- 08 - 18
400	208V	- 09 - 19
	240V	- 10 - 20

B WAS 302-0907 D REMOVED FROM MODEL NO C RAYD VOLTAGE (CENT B WAS 302-0955 A REMOVED 21 THRU - AO		DIVISION OF ORDNANCE COMPARISON MISSISSAUGA - MINNETONKA		DATE 1-29-73 TIME 10:10 AM BY JTM CHECKED BY JTM		METER (LAMP) PANEL (WIRING DIAGRAM)		DATE 1-29-73 TIME 10:10 AM BY JTM CHECKED BY JTM	
LET	REVISED	REVISION	DATE	BY	CHECKED	DATE	BY	CHECKED	DATE
1	1	1	1-29-73	JTM	JTM	1-29-73	JTM	JTM	1-29-73


[illegible]

METER - LAMP COMBINATION: 09

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT METER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY			
AMPERE	VOLTAGE	60 Hz	50 Hz
30	480V	- 01	- 11
	600V	- 02	- 12
	480V	- 03	- 13
60	600V	- 04	- 14
	480V	- 05	- 15
	600V	- 06	- 16
100	480V	- 07	- 17
	600V	- 08	- 18
	480V	- 09	- 19
200	600V	- 10	- 20
	480V	- 11	- 21
	600V	- 12	- 22
400	480V	- 13	- 23
	600V	- 14	- 24
	480V	- 15	- 25

8 WAS 302-0907	1/25	1/25	0-74
C REMOVED FROM MODEL NO	1/25	1/25	0-273
A WAS 302-0855	1/25	1/25	0-537
A REMOVED FROM NO	1/25	1/25	0-233
DATE	REVISED	DATE	REVISED

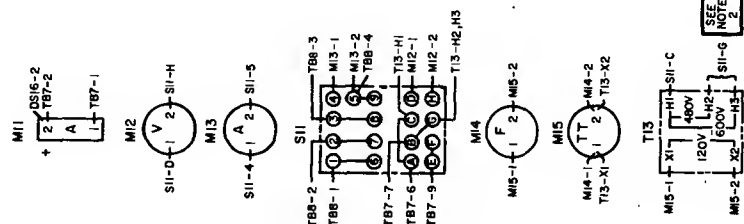
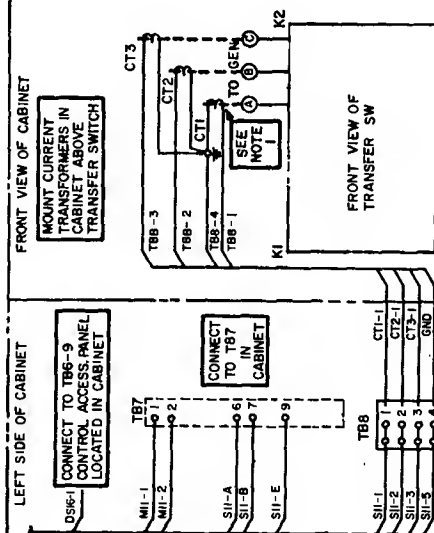
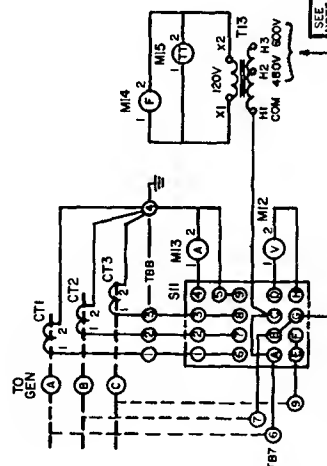
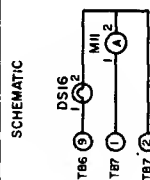

Ongon
 DIVISION OF HEAR CORPORATION
 HEAR CORPORATION

DATE	1-29-73	BY	JTM	FOR	
METER LAMP PANEL (WIRING DIAGRAM)					
SERIAL NO.	1006 H				

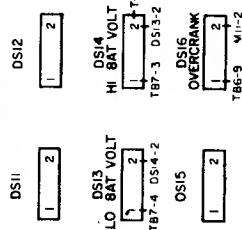
PART JTM UNIT 1-30-73
 REV. NO. _____
 DATE _____
 BY _____
 FOR _____

AT 0	SPEC A
AT 1	AT E
480, 600V.	3PH.,
4W.	50/60HZ.

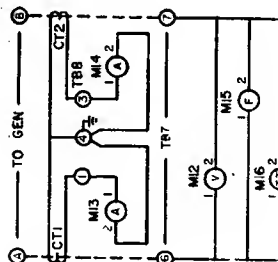
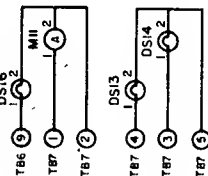
626-0024 C



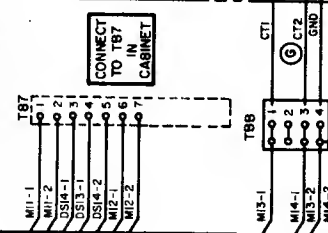
626-0030

REAR VIEW OF
METER PANEL

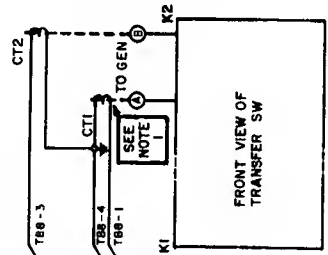
SCHEMATIC



LEFT SIDE OF CABINET

CONNECT TO TB6-9
CONTROL ACCESS PANEL
LOCATED IN CABINET

FRONT VIEW OF CABINET

MOUNT CURRENT
TRANSFORMERS IN
CABINET ABOVE
TRANSFER SWITCH

NOTES:
1. NO OF PRI. TURNS REQUIRED FOR
CORRECT METER READING
30A 4 TURNS
60, 100A 2 TURNS
200, 400A 1 TURN

PARTS LIST

REF DES	QTY	PART NO	DESCRIPTION
CT1,2	1	302-0861	TRANSFORMER ASSY - CUR
8	1	302-0862	TRANSFORMER ASSY - CUR
9	1	302-0863	TRANSFORMER ASSY - CUR
10	1	302-0864	TRANSFORMER ASSY - CUR
11	1	302-0865	TRANSFORMER ASSY - CUR
12	1	302-0866	TRANSFORMER ASSY - CUR
13	1	302-0867	TRANSFORMER ASSY - CUR
14	1	302-0868	TRANSFORMER ASSY - CUR
15	1	302-0869	TRANSFORMER ASSY - CUR
16	1	302-0870	TRANSFORMER ASSY - CUR
17	1	302-0871	TRANSFORMER ASSY - CUR
18	1	302-0872	TRANSFORMER ASSY - CUR
19	1	302-0873	TRANSFORMER ASSY - CUR
20	1	302-0874	TRANSFORMER ASSY - CUR
21	1	302-0875	TRANSFORMER ASSY - CUR
22	1	302-0876	TRANSFORMER ASSY - CUR
23	1	302-0877	TRANSFORMER ASSY - CUR
24	1	302-0878	TRANSFORMER ASSY - CUR
25	1	302-0879	TRANSFORMER ASSY - CUR
26	1	302-0880	TRANSFORMER ASSY - CUR
27	1	302-0881	TRANSFORMER ASSY - CUR
28	1	302-0882	TRANSFORMER ASSY - CUR
29	1	302-0883	TRANSFORMER ASSY - CUR
30	1	302-0884	TRANSFORMER ASSY - CUR
31	1	302-0885	TRANSFORMER ASSY - CUR
32	1	302-0886	TRANSFORMER ASSY - CUR
33	1	302-0887	TRANSFORMER ASSY - CUR
34	1	302-0888	TRANSFORMER ASSY - CUR
35	1	302-0889	TRANSFORMER ASSY - CUR
36	1	302-0890	TRANSFORMER ASSY - CUR
37	1	302-0891	TRANSFORMER ASSY - CUR
38	1	302-0892	TRANSFORMER ASSY - CUR
39	1	302-0893	TRANSFORMER ASSY - CUR
40	1	302-0894	TRANSFORMER ASSY - CUR
41	1	302-0895	TRANSFORMER ASSY - CUR
42	1	302-0896	TRANSFORMER ASSY - CUR
43	1	302-0897	TRANSFORMER ASSY - CUR
44	1	302-0898	TRANSFORMER ASSY - CUR
45	1	302-0899	TRANSFORMER ASSY - CUR
46	1	302-0900	TRANSFORMER ASSY - CUR
47	1	302-0901	TRANSFORMER ASSY - CUR
48	1	302-0902	TRANSFORMER ASSY - CUR
49	1	302-0903	TRANSFORMER ASSY - CUR
50	1	302-0904	TRANSFORMER ASSY - CUR
51	1	302-0905	TRANSFORMER ASSY - CUR
52	1	302-0906	TRANSFORMER ASSY - CUR
53	1	302-0907	TRANSFORMER ASSY - CUR
54	1	302-0908	TRANSFORMER ASSY - CUR
55	1	302-0909	TRANSFORMER ASSY - CUR
56	1	302-0910	TRANSFORMER ASSY - CUR
57	1	302-0911	TRANSFORMER ASSY - CUR
58	1	302-0912	TRANSFORMER ASSY - CUR
59	1	302-0913	TRANSFORMER ASSY - CUR
60	1	302-0914	TRANSFORMER ASSY - CUR
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62	1	302-0916	TRANSFORMER ASSY - CUR
63	1	302-0917	TRANSFORMER ASSY - CUR
64	1	302-0918	TRANSFORMER ASSY - CUR
65	1	302-0919	TRANSFORMER ASSY - CUR
66	1	302-0920	TRANSFORMER ASSY - CUR
67	1	302-0921	TRANSFORMER ASSY - CUR
68	1	302-0922	TRANSFORMER ASSY - CUR
69	1	302-0923	TRANSFORMER ASSY - CUR
70	1	302-0924	TRANSFORMER ASSY - CUR
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72	1	302-0926	TRANSFORMER ASSY - CUR
73	1	302-0927	TRANSFORMER ASSY - CUR
74	1	302-0928	TRANSFORMER ASSY - CUR
75	1	302-0929	TRANSFORMER ASSY - CUR
76	1	302-0930	TRANSFORMER ASSY - CUR
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82	1	302-0936	TRANSFORMER ASSY - CUR
83	1	302-0937	TRANSFORMER ASSY - CUR
84	1	302-0938	TRANSFORMER ASSY - CUR
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86	1	302-0940	TRANSFORMER ASSY - CUR
87	1	302-0941	TRANSFORMER ASSY - CUR
88	1	302-0942	TRANSFORMER ASSY - CUR
89	1	302-0943	TRANSFORMER ASSY - CUR
90	1	302-0944	TRANSFORMER ASSY - CUR
91	1	302-0945	TRANSFORMER ASSY - CUR
92	1	302-0946	TRANSFORMER ASSY - CUR
93	1	302-0947	TRANSFORMER ASSY - CUR
94	1	302-0948	TRANSFORMER ASSY - CUR
95	1	302-0949	TRANSFORMER ASSY - CUR
96	1	302-0950	TRANSFORMER ASSY - CUR
97	1	302-0951	TRANSFORMER ASSY - CUR
98	1	302-0952	TRANSFORMER ASSY - CUR
99	1	302-0953	TRANSFORMER ASSY - CUR
100	1	302-0954	TRANSFORMER ASSY - CUR

626-0030

METER - LAMP COMBINATION II
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT METER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
BATTERY VOLTAGE LAMPS

AMPERE	AT D & E	AT C	AT D & E	AT C
30	-01	-06	-11	-16
60	-02	-07	-12	-17
100	-03	-08	-13	-18
200	-04	-09	-14	-19
400	-05	-10	-15	-20

THIS INFORMATION IS FOR
MANUFACTURERS USE ONLY

J WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
H WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
G WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
F WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
E WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
D WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
C WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
B WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1
A WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1	WAS QTY 1

DIVISION OF GEAR CORPORATION

DATE 3-21-73

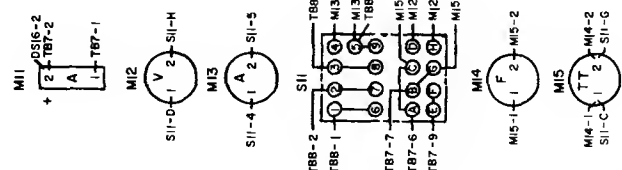
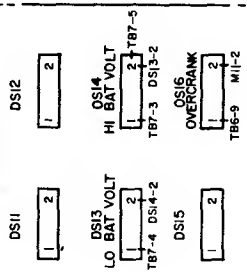
JTM

METER LAMP PANEL
(WIRING DIAGRAM)

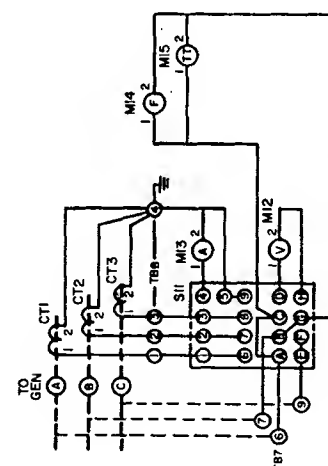
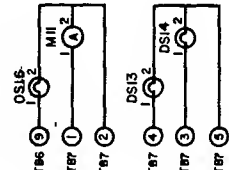
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626-0031

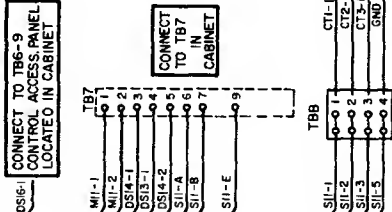
REAR VIEW OF
METER PANEL



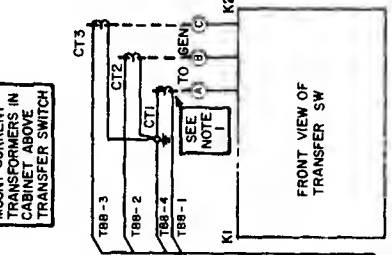
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



NOTES:
1. NO OF PRI TURNS REQUIRED FOR
CORRECT METER READING
300, 1000A
200, 400A
2 TURNS
1 TURN

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1, 2, 3	302-0847	B	TRANSFORMER ASSY - CUR
	302-0848	B	TRANSFORMER ASSY - CUR
	302-0849	B	TRANSFORMER ASSY - CUR
	302-0850	B	TRANSFORMER ASSY - CUR
	302-0855	B	TRANSFORMER ASSY - CUR
DS11, 2, 15	322-0141	A	3 LENS & BEZEL ASSY
DS13	322-0114	A	LAMP - LO BAT VOLT (14V) (AT D & E)
DS13	322-0114	A	LAMP - LO BAT VOLT (28V) (AT C)
DS14	322-0115	A	LAMP - HI BAT VOLT (14V) (AT D & E)
DS14	322-0115	A	LAMP - HI BAT VOLT (28V) (AT C)
DS16	322-0107	A	LAMP - OVERCRANK (14V)
M11	302-0807	A	AMMETER - BAT CHARGER 0-2 AMP
M12	302-0421	P	VOLTMETER 0-300VAC
M13	302-0404	B	AMMETER - AC 0-75AMP (30)
	302-0406	B	AMMETER - AC 0-75AMP (60)
	302-0408	B	AMMETER - AC 0-100AMP (100)
	302-0411	P	AMMETER - AC 0-200AMP (200)
	302-0605	P	AMMETER - AC 0-400AMP (400)
M14	302-0894	B	METER - FREQ POINTER 20BV 50HZ
	302-0896	B	METER - FREQ POINTER 240V 50HZ
	302-0810	B	METER - FREQ POINTER 20BV 60HZ
	302-0811	B	METER - FREQ POINTER 240V 60HZ
M15	302-0469	P	METER - RUNNING TIME 20B/240V 50B
	302-0466	P	METER - RUNNING TIME 20B/240V 60B
S11	306-0022	B	SWITCH - VOLT & AMMETER
	302-0592	A	3 JUMPER
	9B-2445	A	1 SILKSCREEN - SELECTOR SWITCH
TBB	332-1517	A	1 MARKER STRIP
	336-0663	D	1 HARNESS - METER 3PH
	338-0659	B	1 HARNESS - LAMPS (BAT VOLTS)
	301-3507	C	1 PANEL - METER
	9B-2412	D	1 SILKSCREEN - METER PANEL
	9B-2445	A	1 LABEL - POWER SENTRY

626-0031

METER - LAMP COMBINATION: 11

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
BATTERY VOLTAGE LAMPS

AMPERE	VOLTAGE	AT D & E	AT C	AT D & E	AT C
30	20BV	-01	-11	-21	-31
60	20BV	-02	-12	-22	-32
100	20BV	-03	-13	-23	-33
200	20BV	-04	-14	-24	-34
400	20BV	-05	-15	-25	-35
	240V	-06	-16	-26	-36
	20BV	-07	-17	-27	-37
	240V	-08	-18	-28	-38
	20BV	-09	-19	-29	-39
	240V	-10	-20	-30	-40

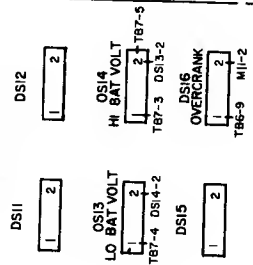
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

A	WAS 302-0807	10	10-74
C	REMOVED FROM MODEL NO	10	10-74
B	WAS 240V 50/60 Hz	10	10-74
A	WAS 302-0855	10	10-74

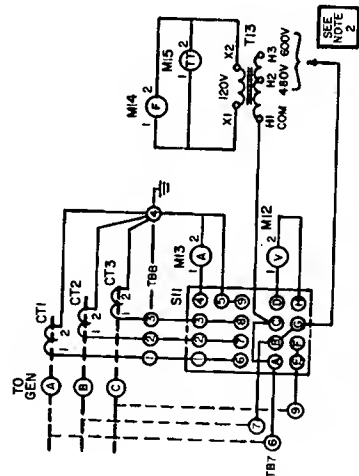
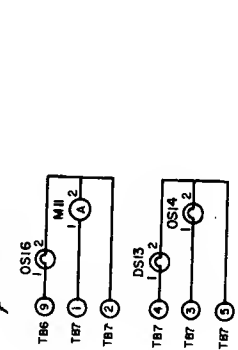
DATE: 1-29-73
BY: JTM
CHECKED: JTM
APPROVED: JTM
REVISION: 1
SPEC A
METER LAMP PANEL
(WIRING DIAGRAM)
20B, 240V
4W., 50/60Hz
3PH.,
626-0031

626-0032

REAR VIEW OF
METER PANEL

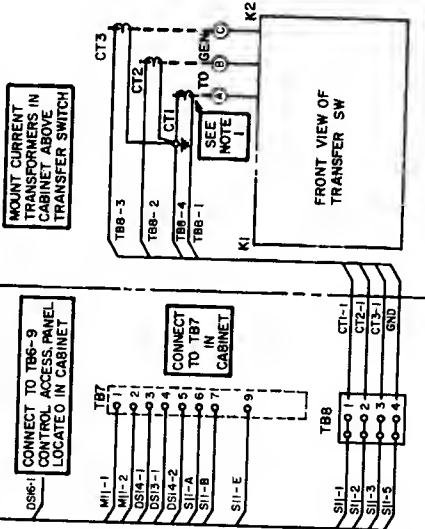


SCHEMATIC



LEFT SIDE OF CABINET

FRONT VIEW OF CABINET



NOTES:
1. NO. OF PRI. TURNS REQUIRED FOR
CORRECT METER READING
30, 100A 4 TURNS
60, 100A 2 TURNS
200, 400A 1 TURN
2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 60V, CONNECT S11-G TO T13-H2
FOR 60V, CONNECT S11-G TO T13-H3

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1-2,3	302-0847	B	TRANSFORMER ASSY - CUR
	302-0848	B	TRANSFORMER ASSY - CUR
	302-0849	B	TRANSFORMER ASSY - CUR
	302-0850	B	TRANSFORMER ASSY - CUR
	302-0851	B	TRANSFORMER ASSY - CUR
	302-0852	B	TRANSFORMER ASSY - CUR
	302-0853	B	TRANSFORMER ASSY - CUR
	302-0854	B	TRANSFORMER ASSY - CUR
	302-0855	B	TRANSFORMER ASSY - CUR
	302-0856	B	TRANSFORMER ASSY - CUR
	302-0857	B	TRANSFORMER ASSY - CUR
	302-0858	B	TRANSFORMER ASSY - CUR
	302-0859	B	TRANSFORMER ASSY - CUR
	302-0860	B	TRANSFORMER ASSY - CUR
	302-0861	B	TRANSFORMER ASSY - CUR
	302-0862	B	TRANSFORMER ASSY - CUR
	302-0863	B	TRANSFORMER ASSY - CUR
	302-0864	B	TRANSFORMER ASSY - CUR
	302-0865	B	TRANSFORMER ASSY - CUR
	302-0866	B	TRANSFORMER ASSY - CUR
	302-0867	B	TRANSFORMER ASSY - CUR
	302-0868	B	TRANSFORMER ASSY - CUR
	302-0869	B	TRANSFORMER ASSY - CUR
	302-0870	B	TRANSFORMER ASSY - CUR
	302-0871	B	TRANSFORMER ASSY - CUR
	302-0872	B	TRANSFORMER ASSY - CUR
	302-0873	B	TRANSFORMER ASSY - CUR
	302-0874	B	TRANSFORMER ASSY - CUR
	302-0875	B	TRANSFORMER ASSY - CUR
	302-0876	B	TRANSFORMER ASSY - CUR
	302-0877	B	TRANSFORMER ASSY - CUR
	302-0878	B	TRANSFORMER ASSY - CUR
	302-0879	B	TRANSFORMER ASSY - CUR
	302-0880	B	TRANSFORMER ASSY - CUR
	302-0881	B	TRANSFORMER ASSY - CUR
	302-0882	B	TRANSFORMER ASSY - CUR
	302-0883	B	TRANSFORMER ASSY - CUR
	302-0884	B	TRANSFORMER ASSY - CUR
	302-0885	B	TRANSFORMER ASSY - CUR
	302-0886	B	TRANSFORMER ASSY - CUR
	302-0887	B	TRANSFORMER ASSY - CUR
	302-0888	B	TRANSFORMER ASSY - CUR
	302-0889	B	TRANSFORMER ASSY - CUR
	302-0890	B	TRANSFORMER ASSY - CUR
	302-0891	B	TRANSFORMER ASSY - CUR
	302-0892	B	TRANSFORMER ASSY - CUR
	302-0893	B	TRANSFORMER ASSY - CUR
	302-0894	B	TRANSFORMER ASSY - CUR
	302-0895	B	TRANSFORMER ASSY - CUR
	302-0896	B	TRANSFORMER ASSY - CUR
	302-0897	B	TRANSFORMER ASSY - CUR
	302-0898	B	TRANSFORMER ASSY - CUR
	302-0899	B	TRANSFORMER ASSY - CUR
	302-0900	B	TRANSFORMER ASSY - CUR
	302-0901	B	TRANSFORMER ASSY - CUR
	302-0902	B	TRANSFORMER ASSY - CUR
	302-0903	B	TRANSFORMER ASSY - CUR
	302-0904	B	TRANSFORMER ASSY - CUR
	302-0905	B	TRANSFORMER ASSY - CUR
	302-0906	B	TRANSFORMER ASSY - CUR
	302-0907	B	TRANSFORMER ASSY - CUR
	302-0908	B	TRANSFORMER ASSY - CUR
	302-0909	B	TRANSFORMER ASSY - CUR
	302-0910	B	TRANSFORMER ASSY - CUR
	302-0911	B	TRANSFORMER ASSY - CUR
	302-0912	B	TRANSFORMER ASSY - CUR
	302-0913	B	TRANSFORMER ASSY - CUR
	302-0914	B	TRANSFORMER ASSY - CUR
	302-0915	B	TRANSFORMER ASSY - CUR
	302-0916	B	TRANSFORMER ASSY - CUR
	302-0917	B	TRANSFORMER ASSY - CUR
	302-0918	B	TRANSFORMER ASSY - CUR
	302-0919	B	TRANSFORMER ASSY - CUR
	302-0920	B	TRANSFORMER ASSY - CUR
	302-0921	B	TRANSFORMER ASSY - CUR
	302-0922	B	TRANSFORMER ASSY - CUR
	302-0923	B	TRANSFORMER ASSY - CUR
	302-0924	B	TRANSFORMER ASSY - CUR
	302-0925	B	TRANSFORMER ASSY - CUR
	302-0926	B	TRANSFORMER ASSY - CUR
	302-0927	B	TRANSFORMER ASSY - CUR
	302-0928	B	TRANSFORMER ASSY - CUR
	302-0929	B	TRANSFORMER ASSY - CUR
	302-0930	B	TRANSFORMER ASSY - CUR
	302-0931	B	TRANSFORMER ASSY - CUR
	302-0932	B	TRANSFORMER ASSY - CUR
	302-0933	B	TRANSFORMER ASSY - CUR
	302-0934	B	TRANSFORMER ASSY - CUR
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	302-0937	B	TRANSFORMER ASSY - CUR
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	302-0941	B	TRANSFORMER ASSY - CUR
	302-0942	B	TRANSFORMER ASSY - CUR
	302-0943	B	TRANSFORMER ASSY - CUR
	302-0944	B	TRANSFORMER ASSY - CUR
	302-0945	B	TRANSFORMER ASSY - CUR
	302-0946	B	TRANSFORMER ASSY - CUR
	302-0947	B	TRANSFORMER ASSY - CUR
	302-0948	B	TRANSFORMER ASSY - CUR
	302-0949	B	TRANSFORMER ASSY - CUR
	302-0950	B	TRANSFORMER ASSY - CUR
	302-0951	B	TRANSFORMER ASSY - CUR
	302-0952	B	TRANSFORMER ASSY - CUR
	302-0953	B	TRANSFORMER ASSY - CUR
	302-0954	B	TRANSFORMER ASSY - CUR
	302-0955	B	TRANSFORMER ASSY - CUR
	302-0956	B	TRANSFORMER ASSY - CUR
	302-0957	B	TRANSFORMER ASSY - CUR
	302-0958	B	TRANSFORMER ASSY - CUR
	302-0959	B	TRANSFORMER ASSY - CUR
	302-0960	B	TRANSFORMER ASSY - CUR
	302-0961	B	TRANSFORMER ASSY - CUR
	302-0962	B	TRANSFORMER ASSY - CUR
	302-0963	B	TRANSFORMER ASSY - CUR
	302-0964	B	TRANSFORMER ASSY - CUR
	302-0965	B	TRANSFORMER ASSY - CUR
	302-0966	B	TRANSFORMER ASSY - CUR
	302-0967	B	TRANSFORMER ASSY - CUR
	302-0968	B	TRANSFORMER ASSY - CUR
	302-0969	B	TRANSFORMER ASSY - CUR
	302-0970	B	TRANSFORMER ASSY - CUR
	302-0971	B	TRANSFORMER ASSY - CUR
	302-0972	B	TRANSFORMER ASSY - CUR
	302-0973	B	TRANSFORMER ASSY - CUR
	302-0974	B	TRANSFORMER ASSY - CUR
	302-0975	B	TRANSFORMER ASSY - CUR
	302-0976	B	TRANSFORMER ASSY - CUR
	302-0977	B	TRANSFORMER ASSY - CUR
	302-0978	B	TRANSFORMER ASSY - CUR
	302-0979	B	TRANSFORMER ASSY - CUR
	302-0980	B	TRANSFORMER ASSY - CUR
	302-0981	B	TRANSFORMER ASSY - CUR
	302-0982	B	TRANSFORMER ASSY - CUR
	302-0983	B	TRANSFORMER ASSY - CUR
	302-0984	B	TRANSFORMER ASSY - CUR
	302-0985	B	TRANSFORMER ASSY - CUR
	302-0986	B	TRANSFORMER ASSY - CUR
	302-0987	B	TRANSFORMER ASSY - CUR
	302-0988	B	TRANSFORMER ASSY - CUR
	302-0989	B	TRANSFORMER ASSY - CUR
	302-0990	B	TRANSFORMER ASSY - CUR
	302-0991	B	TRANSFORMER ASSY - CUR
	302-0992	B	TRANSFORMER ASSY - CUR
	302-0993	B	TRANSFORMER ASSY - CUR
	302-0994	B	TRANSFORMER ASSY - CUR
	302-0995	B	TRANSFORMER ASSY - CUR
	302-0996	B	TRANSFORMER ASSY - CUR
	302-0997	B	TRANSFORMER ASSY - CUR
	302-0998	B	TRANSFORMER ASSY - CUR
	302-0999	B	TRANSFORMER ASSY - CUR
	302-1000	B	TRANSFORMER ASSY - CUR

METER - LAMP COMBINATION - I1
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT-METER
AMMETER
FREQ. METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
BATTERY VOLTAGE LAMPS

AMPERE	VOLTAGE	AT 0 & E	AT C	AT 0 & E	AT C
		60 Hz	60 Hz	50 Hz	50 Hz
30	480V	-01	-11	-21	-31
	600V	-02	-12	-22	-32
60	480V	-03	-13	-23	-33
	600V	-04	-14	-24	-34
100	480V	-05	-15	-25	-35
	600V	-06	-16	-26	-36
200	480V	-07	-17	-27	-37
	600V	-08	-18	-28	-38
400	480V	-09	-19	-29	-39
	600V	-10	-20	-30	-40

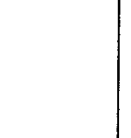
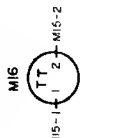
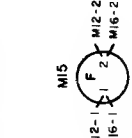
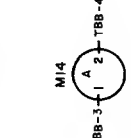
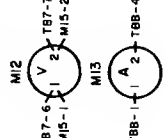
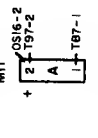
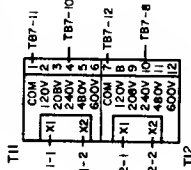
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REVISIONS

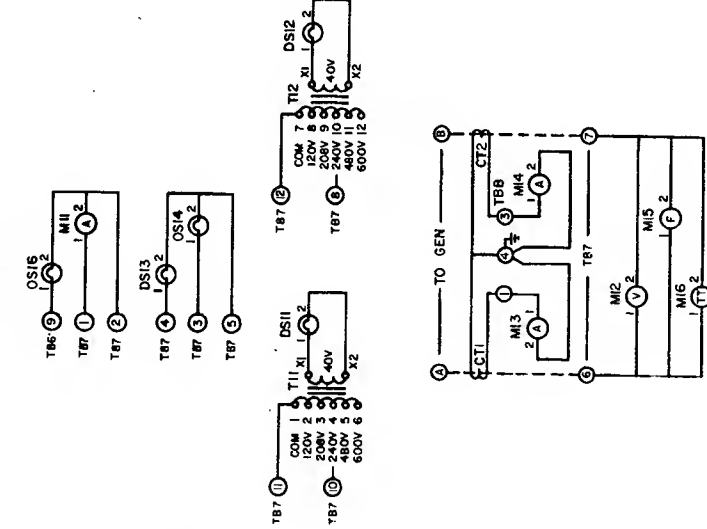
DATE 1-29-73 BY JTM

626-0032

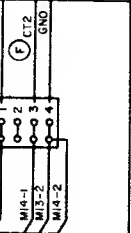
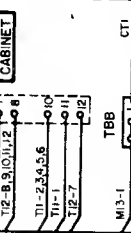
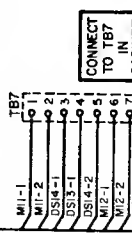
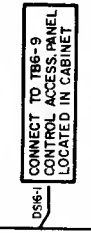
626-0034

REAR VIEW OF
METER PANEL

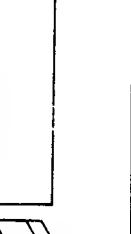
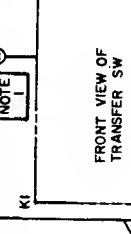
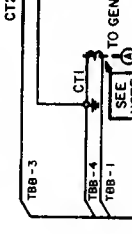
SCHEMATIC



LEFT SIDE OF CABINET



FRONT VIEW OF CABINET



NOTES:
1. NO. OF PH. TURNS REQUIRED FOR
CORRECT METER READING
50, 100A 2 TURNS
200, 400A 1 TURN

PARTS LIST

REF. DES.	PART NO.	QTY	DESCRIPTION
CT1-2	302-0851	B	TRANSFORMER ASSY- CUR
	302-0852	B	TRANSFORMER ASSY- CUR
	302-0853	B	TRANSFORMER ASSY- CUR
	302-0854	B	TRANSFORMER ASSY- CUR
	302-0855	B	TRANSFORMER ASSY- CUR
DS11	322-0146	A	LAMP - NORMAL 56V
DS12	322-0147	A	LAMP - EMERGENCY 56V
DS13	322-0114	A	LAMP - LO BAT VOLT (14V) (AT D, E)
DS14	322-0126	A	LAMP - LO BAT VOLT (28V) (AT C)
DS15	322-0115	A	LAMP - HI BAT VOLT (14V) (AT D, E)
DS16	322-0127	A	LAMP - HI BAT VOLT (28V) (AT C)
DS17	322-0417	A	LENS & BEZEL ASSY
DS18	322-0107	A	LAMP - OVERCRANK (14V)
DS19	302-0807	A	AMMETER - BAT CHARGER 0-2 AMP
DS20	302-0421	P	VOLTMETER 0-300VAC
DS21	302-0404	B	2 AMMETER - AC 0-35AMP (30)
DS22	302-0406	B	2 AMMETER - AC 0-75AMP (160)
DS23	302-0408	B	2 AMMETER - AC 0-100AMP (100)
DS24	302-0411	P	2 AMMETER - AC 0-200AMP (200)
DS25	302-0605	P	2 AMMETER - AC 0-400AMP (400)
DS26	302-0895	B	1 METER - FREO POINTER 240V 50Hz
DS27	302-0811	B	1 METER - FREO POINTER 240V 50Hz
DS28	302-0469	P	1 METER - RUNNING TIME 240V 50Hz
DS29	302-0466	P	1 METER - RUNNING TIME 240V 50Hz
DS30	315-0374	C	1 TRANSFORMER ASSY- STEPDOWN
DS31	332-1517	A	1 MARKER STRIP
DS32	338-0666	D	1 HARNESS-METER 1PH
DS33	338-0661	C	1 HARNESS-LAMPS (NORMAL & EMERGENCY)
DS34	338-0659	B	1 HARNESS-LAMPS (BAT VOLTS)
DS35	301-3508	C	1 PANEL - METER
DS36	98-2413	D	1 SILKSCREEN-METER PANEL
DS37	98-2445	A	1 LABEL - POWER SENTRY

METER - LAMP COMBINATION: 12

CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLTMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

626-0034

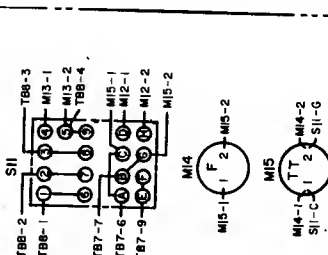
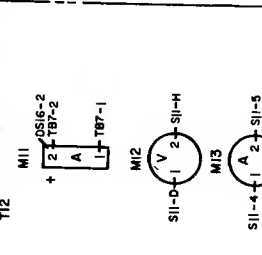
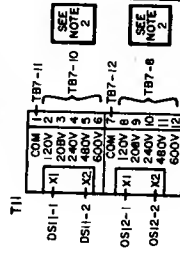
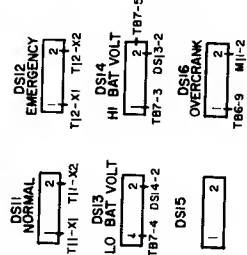
THIS INFORMATION IS FOR MANUFACTURERS USE ONLY									
AMPERE	AT D	AT B	AT C	AT D	AT E	AT C	AT D	AT E	AT C
	60 Hz	60 Hz	60 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz	50 Hz
30	-01	-06	-11	-16	-17	-17	-17	-17	-17
60	-02	-07	-12	-17	-17	-17	-17	-17	-17
100	-03	-08	-13	-18	-18	-18	-18	-18	-18
200	-04	-09	-14	-19	-19	-19	-19	-19	-19
400	-05	-10	-15	-20	-20	-20	-20	-20	-20

DATE 3-21-73
BY JTM
SPEC A
240V, 2W, 120/240V, 3W
1PH., 50/60Hz

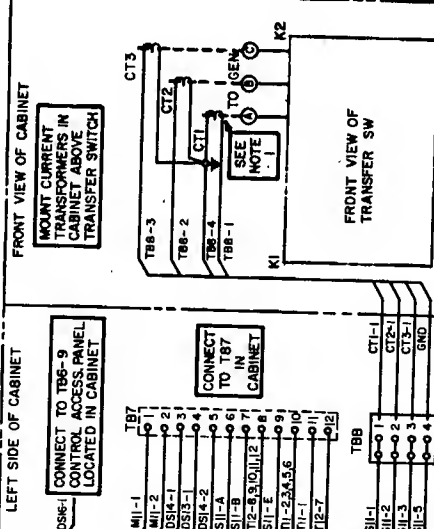
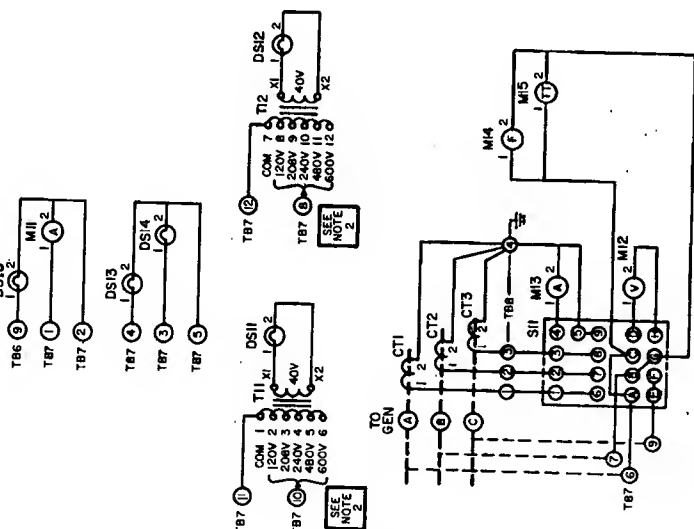
626-0034
METER LAMP PANEL
(WIRING DIAGRAM)

626-0035

REAR VIEW OF
METER PANEL



SCHEMATIC



NOTES:
1. NO OF PRI TURNS REQUIRED FOR
CORRECT METER READING
500, 100A
200, 400A
2. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 208V, CONNECT T11-10 TO T11-3
T11-8 TO T12-3
T11-9 TO T12-9
FOR 240V, CONNECT
T11-10 TO T12-10

REF. DES.	PART NO.	QTY.	DESCRIPTION
CT1,2,3	302-0847	1	TRANSFORMER ASSY - CUR
	302-0848	1	TRANSFORMER ASSY - CUR
	302-0849	1	TRANSFORMER ASSY - CUR
	302-0850	1	TRANSFORMER ASSY - CUR
	302-0851	1	TRANSFORMER ASSY - CUR
	302-0852	1	TRANSFORMER ASSY - CUR
	302-0853	1	TRANSFORMER ASSY - CUR
	302-0854	1	TRANSFORMER ASSY - CUR
	302-0855	1	TRANSFORMER ASSY - CUR
	302-0856	1	TRANSFORMER ASSY - CUR
	302-0857	1	TRANSFORMER ASSY - CUR
	302-0858	1	TRANSFORMER ASSY - CUR
	302-0859	1	TRANSFORMER ASSY - CUR
	302-0860	1	TRANSFORMER ASSY - CUR
	302-0861	1	TRANSFORMER ASSY - CUR
	302-0862	1	TRANSFORMER ASSY - CUR
	302-0863	1	TRANSFORMER ASSY - CUR
	302-0864	1	TRANSFORMER ASSY - CUR
	302-0865	1	TRANSFORMER ASSY - CUR
	302-0866	1	TRANSFORMER ASSY - CUR
	302-0867	1	TRANSFORMER ASSY - CUR
	302-0868	1	TRANSFORMER ASSY - CUR
	302-0869	1	TRANSFORMER ASSY - CUR
	302-0870	1	TRANSFORMER ASSY - CUR
	302-0871	1	TRANSFORMER ASSY - CUR
	302-0872	1	TRANSFORMER ASSY - CUR
	302-0873	1	TRANSFORMER ASSY - CUR
	302-0874	1	TRANSFORMER ASSY - CUR
	302-0875	1	TRANSFORMER ASSY - CUR
	302-0876	1	TRANSFORMER ASSY - CUR
	302-0877	1	TRANSFORMER ASSY - CUR
	302-0878	1	TRANSFORMER ASSY - CUR
	302-0879	1	TRANSFORMER ASSY - CUR
	302-0880	1	TRANSFORMER ASSY - CUR
	302-0881	1	TRANSFORMER ASSY - CUR
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	302-0892	1	TRANSFORMER ASSY - CUR
	302-0893	1	TRANSFORMER ASSY - CUR
	302-0894	1	TRANSFORMER ASSY - CUR
	302-0895	1	TRANSFORMER ASSY - CUR
	302-0896	1	TRANSFORMER ASSY - CUR
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	302-0899	1	TRANSFORMER ASSY - CUR
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	302-0997	1	TRANSFORMER ASSY - CUR
	302-0998	1	TRANSFORMER ASSY - CUR
	302-0999	1	TRANSFORMER ASSY - CUR
	302-1000	1	TRANSFORMER ASSY - CUR

METER-LAMP COMBINATION: 12
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT-METER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

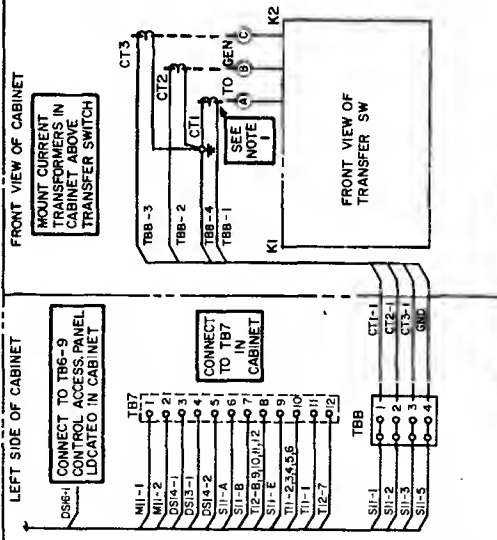
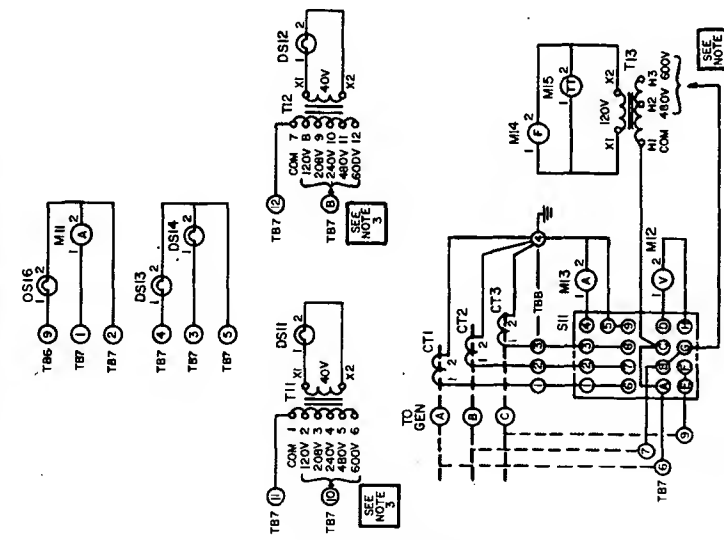
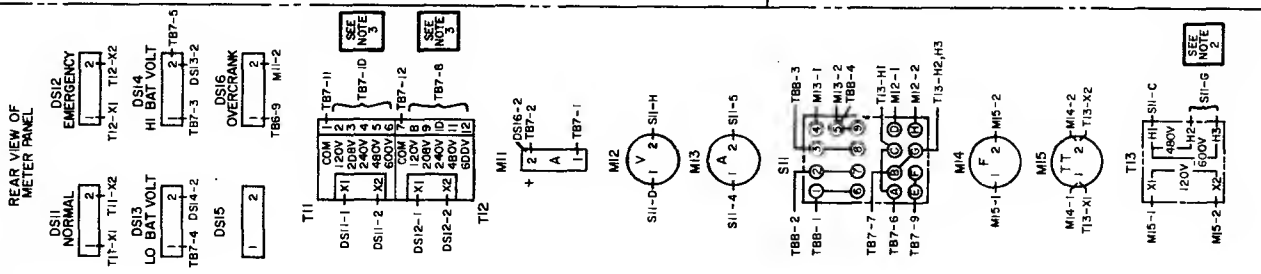
AMPERE	VOLTAGE	AT D & E	AT C	AT D & E	AT C
30	208V	-01	-11	-21	-31
60	208V	-02	-12	-22	-32
100	208V	-03	-13	-23	-33
200	208V	-04	-14	-24	-34
400	208V	-05	-15	-25	-35
	240V	-06	-16	-26	-36
	240V	-07	-17	-27	-37
	240V	-08	-18	-28	-38
	240V	-09	-19	-29	-39
	240V	-10	-20	-30	-40

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY

DATE: 1-25-73 BY: JTM FOR: JTM

REVISION: 1-25-73

626-0035



NOTES:

1. NO. OF PRI TURNS REQUIRED FOR
CORRECT METER READING
30A 4 TURNS
60,100A 2 TURNS
200,400A 1 TURN

2. WIRE TRANSFORMER T13 AS FOLLOWS:
FOR 400V, CONNECT T11-G TO T13-H3
FOR 600V, CONNECT T11-G TO T13-H2

3. WIRE TRANSFORMER T11 & T12 AS
FOLLOWS:
FOR 400V, CONNECT T87-B TO T11-5
T87-B TO T12-11
FOR 600V, CONNECT T87-B TO T11-6
T87-B TO T12-12

REF. DES.	PART NO.	QTY	DESCRIPTION	PARTS LIST
CT1,2,3	302-0847	B	TRANSFORMER ASSY-CUR	(30)
DS1	302-0848	B	TRANSFORMER ASSY-CUR	(60)
DS2	302-0849	B	TRANSFORMER ASSY-CUR	(100)
DS3	302-0850	B	TRANSFORMER ASSY-CUR	(200)
DS4	302-0851	B	TRANSFORMER ASSY-CUR	(400)
DS5	322-0146	A	LAMP-NORMAL	56V
DS6	322-0147	A	LAMP-EMERGENCY	56V
DS7	322-0148	A	LAMP-LO BAT VOLT (14V) (AT D & E)	
DS8	322-0149	A	LAMP-LO BAT VOLT (28V) (AT C)	
DS9	322-0150	A	LAMP-HI BAT VOLT (14V) (AT D & E)	
DS10	322-0151	A	LAMP-HI BAT VOLT (28V) (AT C)	
DS11	322-0141	A	LENS & BEZEL ASSY	
DS12	322-0142	A	LAMP-OVERCARG	(14V)
DS13	302-0807	A	AMMETER-BAT CHARGER 0-2 AMP	
DS14	302-0422	P	VOLTMETER 0-600V	(4B0V)
DS15	302-0423	P	VOLTMETER 0-750V	(600V)
DS16	302-0404	B	AMMETER-AC 0-35AMP	(30V)
DS17	302-0406	B	AMMETER-AC 0-75AMP	(100V)
DS18	302-0408	B	AMMETER-AC 0-100AMP	(100V)
DS19	302-0411	P	AMMETER-AC 0-200AMP	(200V)
DS20	302-0603	P	AMMETER-AC 0-400AMP	(400V)
DS21	302-0893	B	METER-FREQ POINTER 120V 50HZ	
DS22	302-0809	B	METER-FREQ POINTER 120V 60HZ	
DS23	302-0468	P	METER-RUNNING TIME 120V 50HZ	
DS24	302-0469	P	METER-RUNNING TIME 120V 60HZ	
DS25	308-0022	B	JUMPER-VOLT & AMMETER	
DS26	322-0592	A	SWITCH	4
DS27	98-2443	A	SILKSCREEN-SELECTOR SWITCH	
DS28	315-0374	C	TRANSFORMER ASSY-STEPDOWN	
DS29	315-0377	A	TRANSFORMER-STEPDOWN	
DS30	332-1517	A	MARKER STRIP	
DS31	338-0673	D	HARNES-METER 3 PH	
DS32	338-0681	C	HARNES-LAMPS NORMAL & EMERGENCY	
DS33	338-0659	B	HARNES-LAMPS (BAT VOLTS)	
DS34	301-3507	C	PANEL-METER	
DS35	98-2412	D	SILKSCREEN-METER PANEL	
DS36	98-2445	A	LABEL-POWER SENTRY	

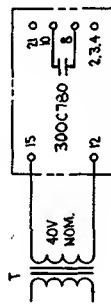
METER - LAMP COMBINATION: 12
CHARGE AMMETER
OVERCRANK LAMP (USE ON AT E ONLY)
VOLT/METER
AMMETER
FREQ METER
RUNNING TIME METER
CURRENT TRANSFORMER
SELECTOR SW
NORMAL & EMERGENCY LAMPS
BATTERY VOLTAGE LAMPS

THIS INFORMATION IS FOR MANUFACTURERS USE ONLY						
AMPERE	VOLTAGE	AT D & E 60 Hz	AT C 60 Hz	AT D & E 50 Hz	AT C 50 Hz	
30	480V	-01	-11	-21	-31	
	600V	-02	-12	-22	-32	
60	480V	-03	-13	-23	-33	
	600V	-04	-14	-24	-34	
100	480V	-05	-15	-25	-35	
	600V	-06	-16	-26	-36	
200	480V	-07	-17	-27	-37	
	600V	-08	-18	-28	-38	
400	480V	-09	-19	-29	-39	
	600V	-10	-20	-30	-40	

[illegible]

MODULES

MODULE	PAGE
300-0780 Voltage Sensor	122
300-0793 Battery Charger (12V)	123
300-0794 Battery Charger (24V)	124
300-0796 Battery Voltage (12V)	125
300-0797 Battery Voltage (24V)	126
300-0847 Voltage (12V)	127
300-0848 24V to 12V Converter.....	128
300-0857 Extension Board	129
300-0921 Start-Stop T.D. (12V).....	130
300-0922 Start-Stop T.D. (24V).....	131
300-0924 Transfer T.D.	132
300-0926 2 to 3 Wire Converter	133
300-0927 Bypass Plug	134
300-0937 Blank (Spare).....	135
300-1072 Preheat T.D.	136
300-1177 Start-Stop Bypass Plug.....	137
307-1199 Retransfer T.D.	138



SYMBOL FOR SCHEMATIC DIAG.

NOTES:

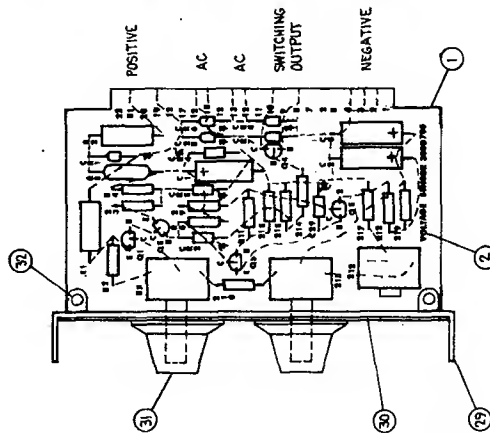
INPUT	-----	OUT PUT (TERMINAL 2)	-----	OUTPUT (TERMINAL 8-10)	-----
	40 VOLTS NOMINAL 50/60 HZ (USE 10 VA STEPDOWN TRANSFORMER ONLY IS CALIBRATED FOR 120/240 V STEPMOM)		50 MA INTO 470K RESISTIVE LOAD (NOTE USE FREE WHEELING DIODE OR CAPACITOR ACROSS D-21 FOR RELAT LOADS. RECOMMEND 1% OF SOURCE CAP.)		150 MA

SPECIFICATION

PICKUP VOLTAGE ADJ RANGE ----- 50-140 VOLTS 50/80 N2
FOR 180-280V MULTIPLY
OIAL READINGS NY 2
FOR 350-380V MULTIPLY
OIAL READINGS NY 4
FOR 450-700V MULTIPLY
OIAL READINGS NY 5

DROP OUT DIFFERENTIAL RANGE --- 5-20% OF PICKUP VOLTAGE SETTING

ORIFT DUE TO TEMP ----- ± 2 VOLTS MAX (75°F TO +175°F OR 75°F TO -25°F)



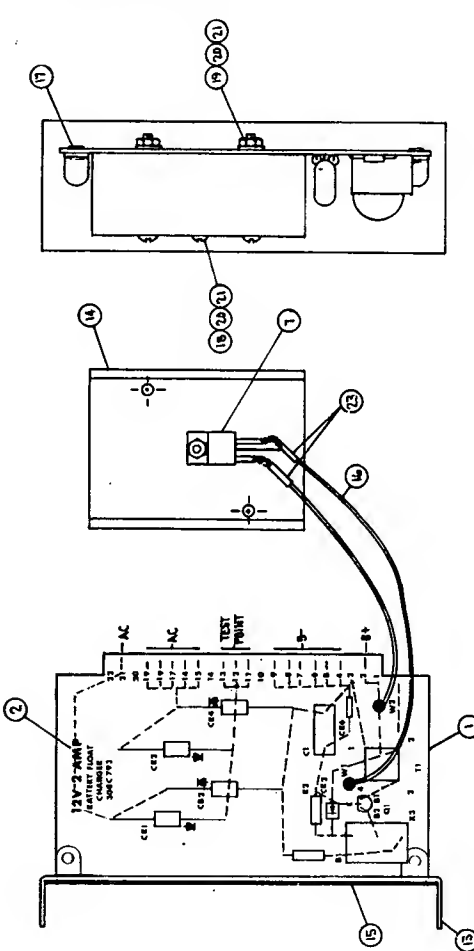
NOTES:

TEST AND CALIBRATE PER DRAWING 5398161.

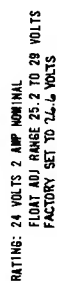
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RATING 12 VOLTS 2 AMP NOMINAL
FLOAT ADJ RANGE 12.6 TO 14.5 VOLTS
FACTORY SET TO 13.3

TEST AND ADJUST FLOAT CHARGE VOLTAGE PER Dwg 5398163

[illegible]

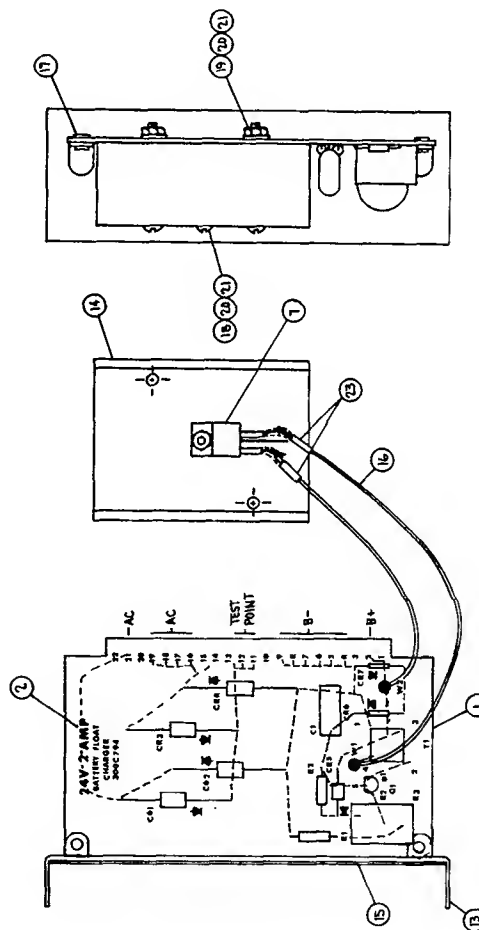
DATE	300-793	DATE SIZE C
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NOTES:

TEST AND ADJUST FLOAT CHARGE VOLTAGE PER OWG 5398164

300-794



23	998-8	15 IN	SLEEVING NO 14
22	*880-3	1	SOLDER
21	880-6	3	MUT-INS #8-32
20	853-3	3	WASHER-ET LK #6
19	812-70	2	SCREW-RHM 8-32 x 1-1/4
18	812-61	1	SCREW-RHM 8-32 x 3/8
17	818-3	2	RIVET #6
16	*3341-890	4 IN	WIRE-FLEXIBLE NO. 20
15	989-2316	A	LABEL-BATTERY CHARGER
14	363-56	A	HEAT SINK-SR
13	301-3321	B	PANEL-PC MTS
12	315-368	B	TRANSFORMER SCR FIRING 1:1 RATIO
R3	103-179	A	POTENTIOMETER W.W. 750K 5%
R2	350-422	P	RESISTOR 30K- Ω
R1	351-210	A	RESISTOR 1500K \pm 1%
O1	361-3	A	TRANSISTOR-NPN JUNCTION 2N4871
CR8	364-15	A	SCR-8 AMP 50V
CR6,7	359-32	A	DIODE-ZENER 8.2V \pm 5%
CR5	357-4	A	DIODE-BLOCKING
1, 2, 3, 4	357-17	A	DIODE-3 AMP 100V
C1	355-25	A	CAPACITOR 0.1 MFD 100V
2	986-2298	A	SILKSCREEN ZAY
1	332-1427	C	PRINTED CIRCUIT BOARD

[illegible]

SCHEMATIC

SPECIFICATIONS

1. INPUT: APPROX 30 MA WITHOUT ALARM, CALIBRATION AND ADJUSTMENT OF 5% AT 20-25°C AMBIENT CONDITION.

2. OUTPUT (LAMPS): APPROX 80 MA TO 120 MA, 17 AMP 2N.

3. OUTPUT (DRY CONTACTS): 2 AMPS, 115 VAC, 20 VDC.

4. LB BAT VOLTAGE ADJ RANGE: 24.0-27.2.

5. HB BAT VOLTAGE ADJ RANGE: 28.4-30.8.

LOW BAT VOLT

HIGH BAT VOLT

LOW BAT VOLT

HIGH BAT VOLT

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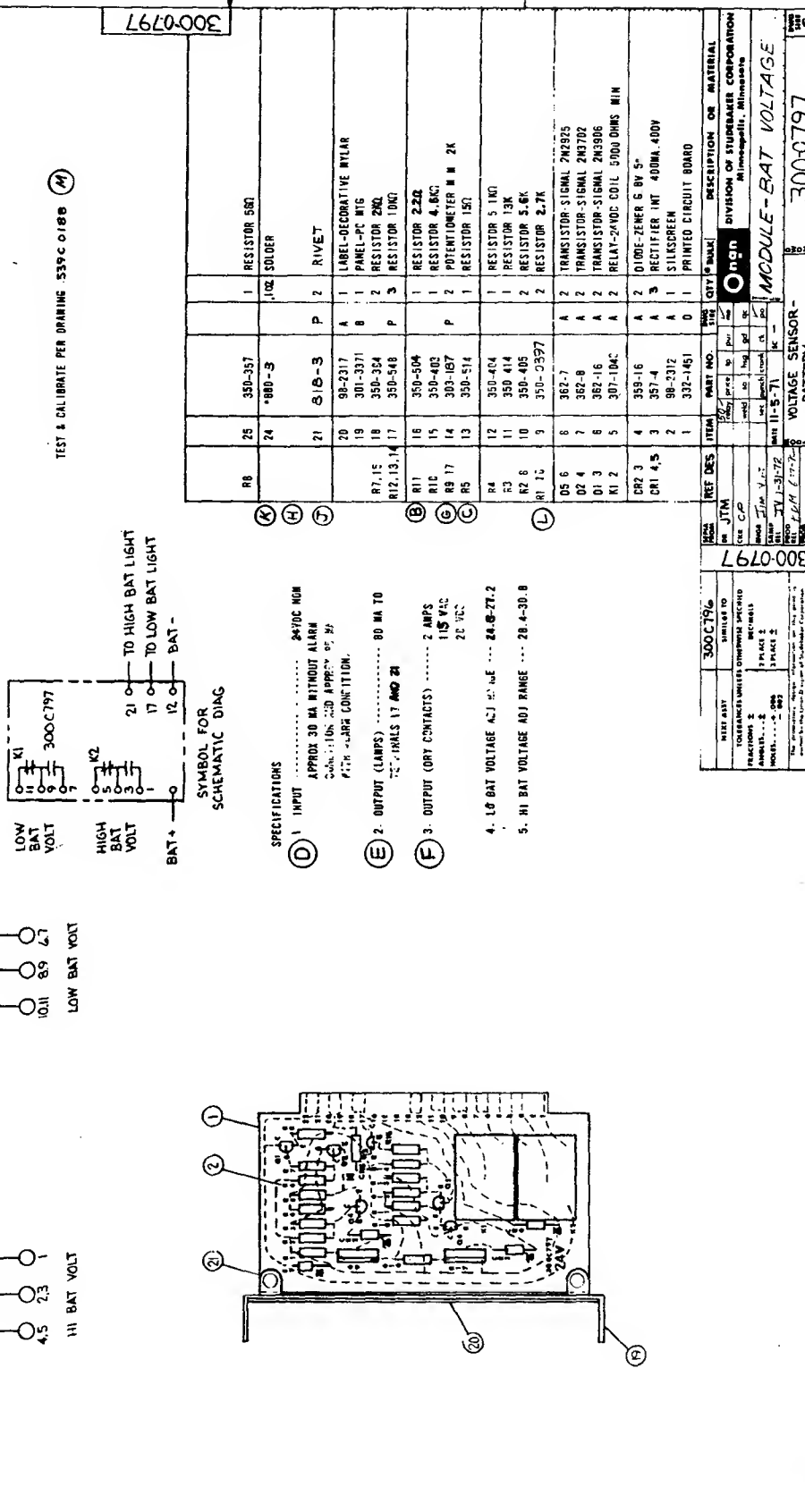
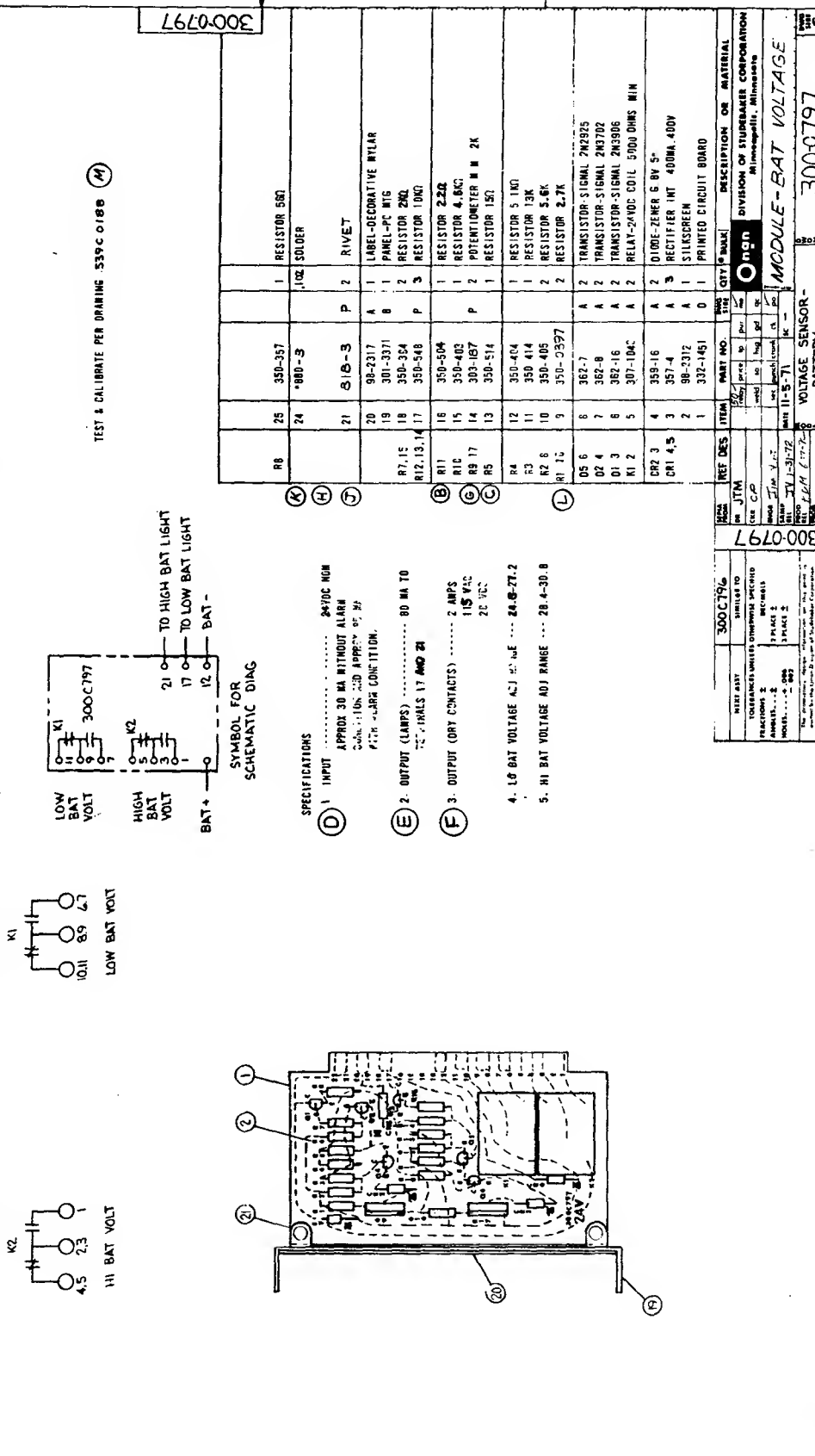
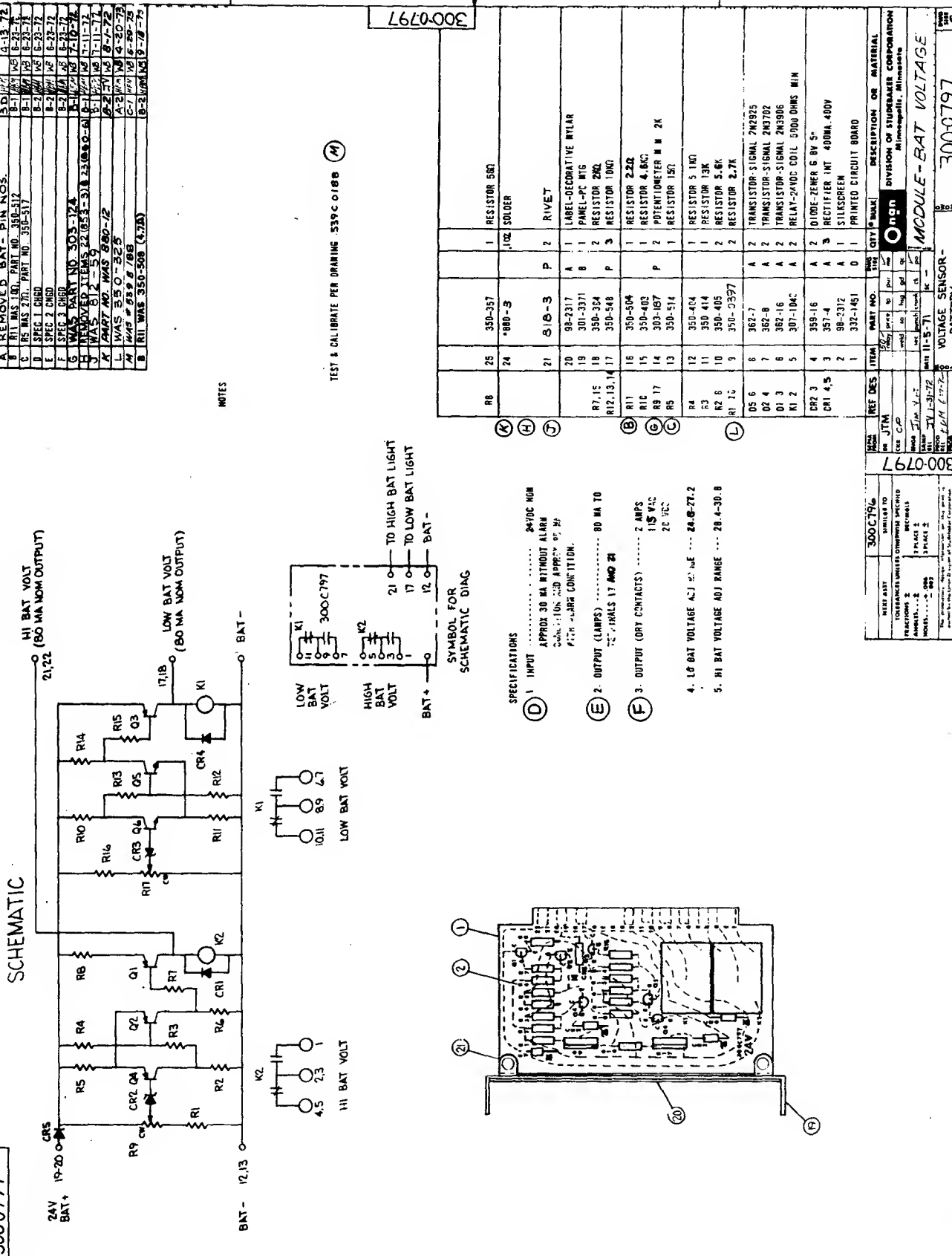
HIGH BAT VOLT

LOW BAT VOLT

HIGH BAT VOLT

LOW BAT VOLT

HIGH BAT VOLT



SYMBOL FOR SCHEMATIC DIAG.

SPECIFICATIONS

(D) 1. INPUT 24VDC NOM
APPROX 30 MA WITHOUT ALARM
CABLE LENGTH AND APPROX OF 25
FIVE WIRE CONNECTION.

(E) 2. OUTPUT (LAMPS) 80 MA TO
220 V. HALS 17 WATT 24

(F) 3. OUTPUT (DRY CONTACTS) 2 AMPS
115 VAC
20 VDC

4. LOW BATTERY VOLTAGE 24-27.2
5. HIGH BATTERY VOLTAGE 28.4-30.8

[illegible]

TOLERANCES UNLESS OTHERWISE SPECIFIED

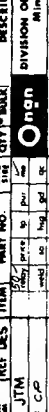
RESISTORS	CAPACITORS	INDUCTORS	DIODES	TRANSISTORS	IC'S
FILMS - ± 5%	MKTS - ± 10%	-	-	-	-

Legend:

- (E) 2. OUTPUT (LAMPS) 80 MA TO " " LINES 17 AND 21
- (F) 3. OUTPUT (DRY CONTACTS) 2 AMPS 115 VAC 2C VCC
- 4. LB BAT VOLTAGE ALI 2C VCC ... 24-6-77-2
- 5. HB BAT VOLTAGE ADJ RANGE ... 28.4-30.8

[illegible]

4. LG BAT VOLTAGE A2J 2.1 LE --- 24-27.2
5. HI BAT VOLTAGE ADJ RANGE --- 28.4-30.8

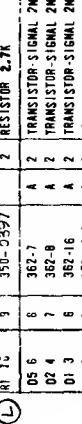


REF DES	ITEM	PART NO.	QTY	UNIT	DESCRIPTION OR MATERIAL
R4	12	350-404	1		RESISTOR 5 1KΩ
F3	11	350-415	1		RESISTOR 13K
R2 B	10	350-404	2		RESISTOR 5.6K
R1 L2	9	350-3357	2		RESISTOR 2.7K
Q5 G	6	382-7	A 2		TRANSISTOR-SIGNAL 2N3925
Q2 4	7	382-8	A 2		TRANSISTOR-SIGNAL 2N3702
O1 3	8	382-16	A 2		TRANSISTOR-SIGNAL 2N3906
K1 2	5	307-104C	A 2		RELAY-24VDC COIL 500Ω OHMS MIN
C92 3	4	359-16	A 2		DIODE-ZENER 6 BV 5"
C81 4, 5	3	357-4	A 3		RECTIFIER INT 400MA .400V
	2	98-2312	A 1		SILSCREEN
	1	332-1451	O 1		PRINTED CIRCUIT BOARD

DIVISION OF STURGEON CORPORATION
Minneapolis, Minnesota

MODULE-BAT VOLTAGE

VOLUME SENSOR - 300-0797



5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1	24	1	24	1
5	1	24	1	24	1	24	1

5. NI BAT VOLTAGE ADJ RANGE ... 28.4-30.8

WIRE ASST		300C-196		SIMILAR TO		TOLERANCES UNLESS OTHERWISE SPEC'D	
FRAC	QTY	WIRE	QTY	WIRE	QTY	WIRE	QTY
1	1	24	1	24	1	24	1
2	1	24	1	24	1	24	1
3	1	24	1	24	1	24	1
4	1	24	1</				

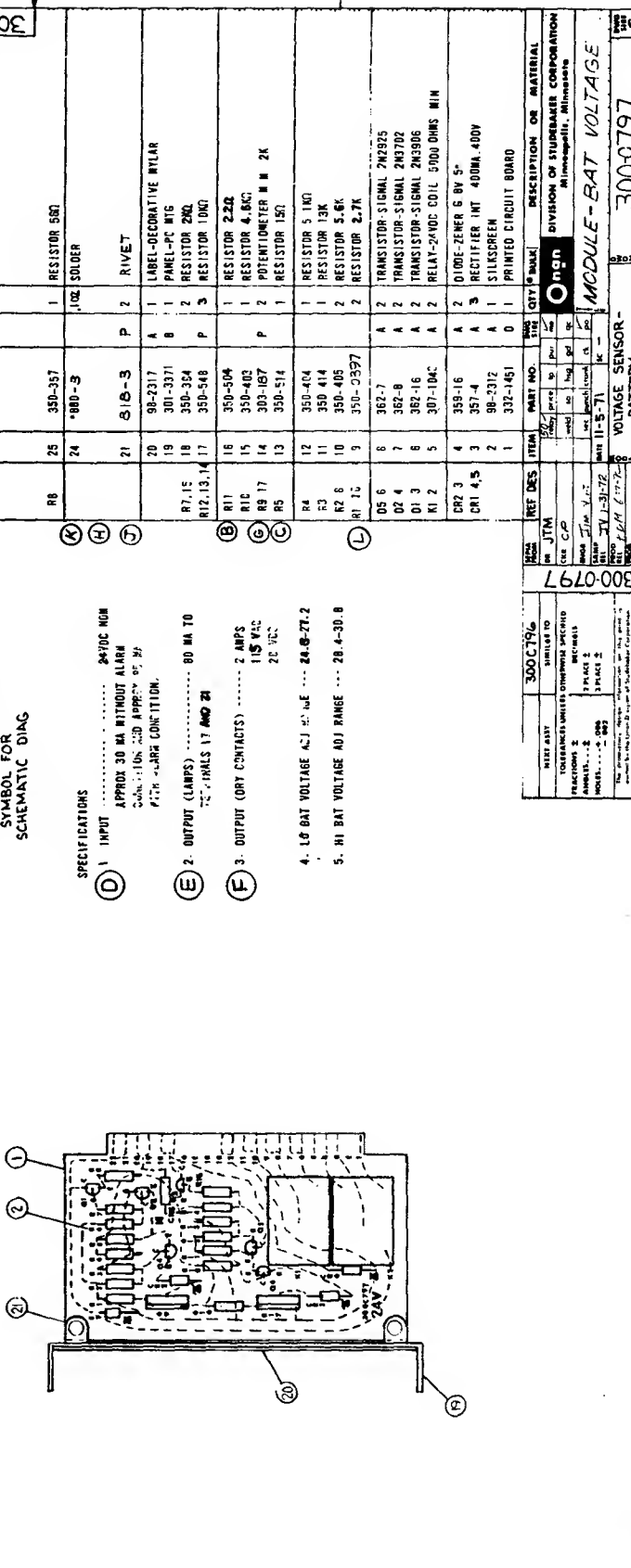


FIG. 1. Schematic diagram of internal components of 300C796 alarm clock.

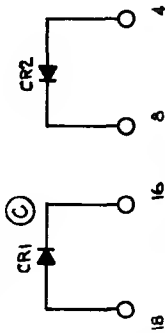
ITEM	REF	DES	QTY	UNIT	DESCRIPTION OR MATERIAL
1	R	25	350-357	1	RESISTOR 580
2	C	24	480-3	1	100 SOLE
3	T	21	3-3	2	RIVET
4	R	20	98-2317	1	LABEL-DECORATIVE MTLR
5	R	19	301-3371	1	PANEL-PC MTG
6	R	18	350-354	2	RESISTOR 2M
7	R	17	350-548	3	RESISTOR 10K
8	R	16	350-504	1	RESISTOR 2.2K
9	R	15	350-403	1	RESISTOR 4.8K
10	R	14	303-167	2	POTENTIOMETER M 2K
11	R	13	350-514	1	RESISTOR 15K
12	R	12	350-474	1	RESISTOR 5.1K
13	R	11	350-414	1	RESISTOR 13K
14	R	10	350-405	2	RESISTOR 3.6K
15	R	9	350-5597	2	RESISTOR 2.7K
16	T	6	382-7	1	TRANSISTOR-SIGNAL 2N325
17	T	7	382-8	1	TRANSISTOR-SIGNAL 2N3702
18	T	8	382-16	1	TRANSISTOR-SIGNAL 2N3906
19	T	5	307-104C	1	RELAY-24VDC COIL 5000 OHMS MIN
20	D	4	359-16	1	DIODE-ZENER 6.0V 5W
21	D	3	357-4	1	RECTIFIER INT 400MA 400V
22	D	2	98-2312	1	SILKSCREEN
23	D	1	332-1451	1	PRINTED CIRCUIT BOARD

ITEM	REF	DES	QTY	UNIT	DESCRIPTION OR MATERIAL
24	R	25	350-357	1	RESISTOR 580
25	C	24	480-3	1	100 SOLE
26	T	21	3-3	2	RIVET
27	R	20	98-2317	1	LABEL-DECORATIVE MTLR
28	R	19	301-3371	1	PANEL-PC MTG
29	R	18	350-354	2	RESISTOR 2M
30	R	17	350-548	3	RESISTOR 10K
31	R	16	350-504	1	RESISTOR 2.2K
32	R	15	350-403	1	RESISTOR 4.8K
33	R	14	303-167	2	POTENTIOMETER M 2K
34	R	13	350-514	1	RESISTOR 15K
35	R	12	350-474	1	RESISTOR 5.1K
36	R	11	350-414	1	RESISTOR 13K
37	R	10	350-405	2	RESISTOR 3.6K
38	R	9	350-5597	2	RESISTOR 2.7K
39	T	6	382-7	1	TRANSISTOR-SIGNAL 2N325
40	T	7	382-8	1	TRANSISTOR-SIGNAL 2N3702
41	T	8	382-16	1	TRANSISTOR-SIGNAL 2N3906
42	T	5	307-104C	1	RELAY-24VDC COIL 5000 OHMS MIN
43	D	4	359-16	1	DIODE-ZENER 6.0V 5W
44	D	3	357-4	1	RECTIFIER INT 400MA 400V
45	D	2	98-2312	1	SILKSCREEN
46	D	1	332-1451	1	PRINTED CIRCUIT BOARD

ITEM	REF	DES	QTY	UNIT	DESCRIPTION OR MATERIAL
47	R	25	350-357	1	RESISTOR 580
48	C	24	480-3	1	100 SOLE
49	T	21	3-3	2	RIVET
50	R	20	98-2317	1	LABEL-DECORATIVE MTLR
51	R	19	301-3371	1	PANEL-PC MTG
52	R	18	350-354	2	RESISTOR 2M
53	R	17	350-548	3	RESISTOR 10K
54	R	16	350-504	1	RESISTOR 2.2K
55	R	15	350-403	1	RESISTOR 4.8K
56	R	14	303-167	2	POTENTIOMETER M 2K
57	R	13	350-514	1	RESISTOR 15K
58	R	12	350-474	1	RESISTOR 5.1K
59	R	11	350-414	1	RESISTOR 13K
60	R	10	350-405	2	RESISTOR 3.6K
61	R	9	350-5597	2	RESISTOR 2.7K
62	T	6	382-7	1	TRANSISTOR-SIGNAL 2N325
63	T	7	382-8	1	TRANSISTOR-SIGNAL 2N3702
64	T	8	382-16	1	TRANSISTOR-SIGNAL 2N3906
65	T	5	307-104C	1	RELAY-24VDC COIL 5000 OHMS MIN
66	D	4	359-16	1	DIODE-Z

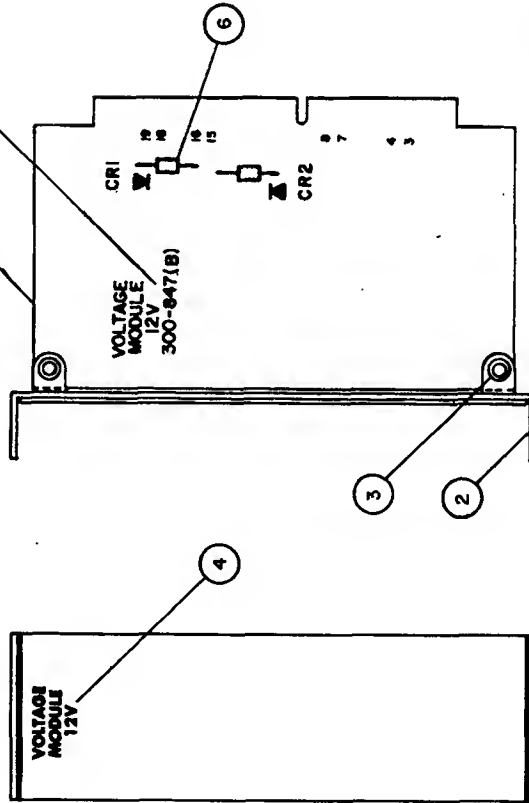
[illegible]

LT	REVISION	ZONE	ENG	CHK	DATE
A	ADDED ITEM NO. 6	B2	TV	W8	8-2-72
B	ADDED ITEM NO. 7	B2	TV	W8	8-2-72
C	PART NO. WAS 818-3	B2	TV	W8	8-10-72
D	ADDED DIODE SYMBOL TO SCHEMATIC	D4	TV	W8	8-10-72
	REVISED SILKSCREEN	B3	TV	W8	6-18-73



SCHEMATIC

DIAGRAM SYMBOL



ITEM	QTY	DESCRIPTION OR MATERIAL
7	102	SOLDER
6	A 2	RECTIFIER - INT 400 MA 400 V
5	A 1	SILKSCREEN-VOLTAGE M00
4	A 1	LABEL-VOLTAGE MODULE
3	2	RIVET #6
2	8	PANEL-PC 8D
1	C 1	PRINTED CIRCUIT BOARD

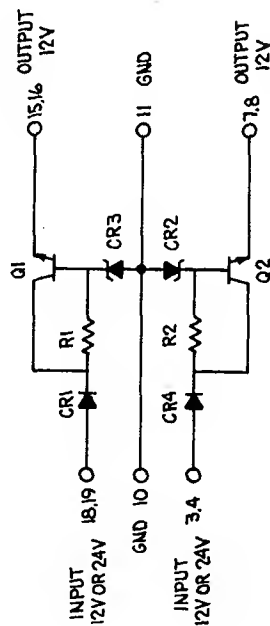
ITEM	QTY	DESCRIPTION OR MATERIAL
7	102	SOLDER
6	A 2	RECTIFIER - INT 400 MA 400 V
5	A 1	SILKSCREEN-VOLTAGE M00
4	A 1	LABEL-VOLTAGE MODULE
3	2	RIVET #6
2	8	PANEL-PC 8D
1	C 1	PRINTED CIRCUIT BOARD

ITEM	QTY	DESCRIPTION OR MATERIAL
7	102	SOLDER
6	A 2	RECTIFIER - INT 400 MA 400 V
5	A 1	SILKSCREEN-VOLTAGE M00
4	A 1	LABEL-VOLTAGE MODULE
3	2	RIVET #6
2	8	PANEL-PC 8D
1	C 1	PRINTED CIRCUIT BOARD

300-848

B

LET	REVISION	ZONE	ENG	CIR	DATE
A	GENERAL SEE DCN WAS 300-926	—	—	—	5-31-72
B	WAS INS349	A-1	2/14/72	1/8	6-16-72
C	PART NO. WAS 880-12	B-2	3/1/72	1/8	8-1-72

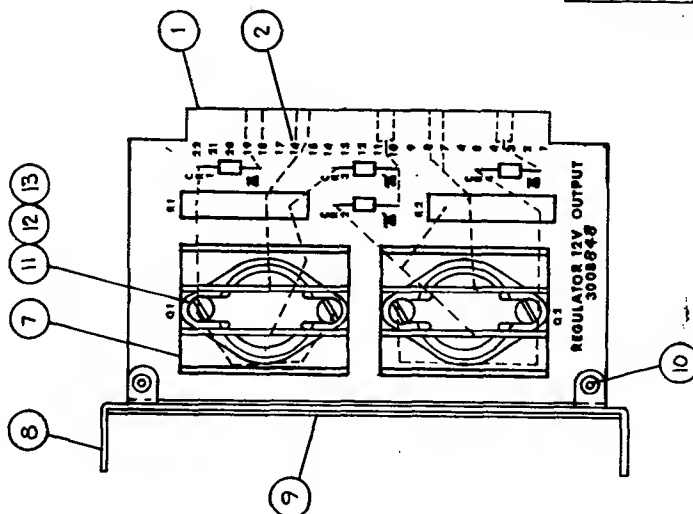


NOTES:

TEST PER DRAWING 5398194.

RATINGS:

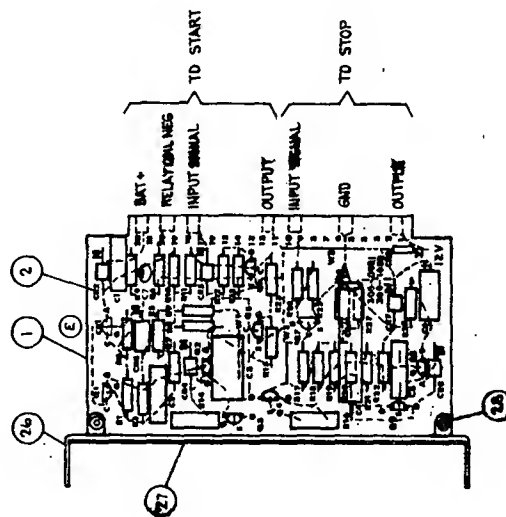
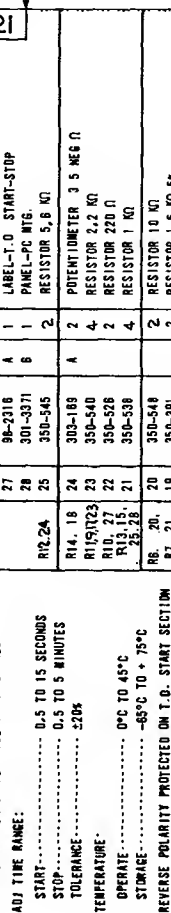
INPUT----- 24 V \pm 5 VDC
 OUTPUT----- 13.4 V \pm 1 VDC
 LOAD CURRENT----- 0 TO 350 MA
 MAX POWER CONSUMPTION 10.6 WATTS
 STORAGE TEMP----- -40°C TO 175°C
 OPERATING TEMP - 40°C TO +75°C



ITEM	REF DES	QTY	DESCRIPTION OR MATERIAL
14	*880-3	1	SO LDOER
13	880-6	4	NUT-HMS #6
12	883-3	4	WASHER-ET LK #6
11	812-61	4	SCREW-RHM 8-32 x 3/8
10	818-3	2	RIVET
9	98-2375	A	LABEL-VOLTAGE CONVERTER
8	301-3371	B	PANEL-PC MTG
7	363-67	B	HEAT SINK-TRANSISTOR
6	352-155	A	RESISTOR-FIXED 100 Ω \pm 5%
5	362-18	A	TRANSISTOR-POWER 2N3055
4	359-33	A	DIODE-ZENER 14 V 5% IN5351 (B)
3	357-4	A	DIODE-BLOCKING
2	98-2422	A	SILKSCREEN-PC 80
1	332-1433	C	PRINTED CIRCUIT BOARD

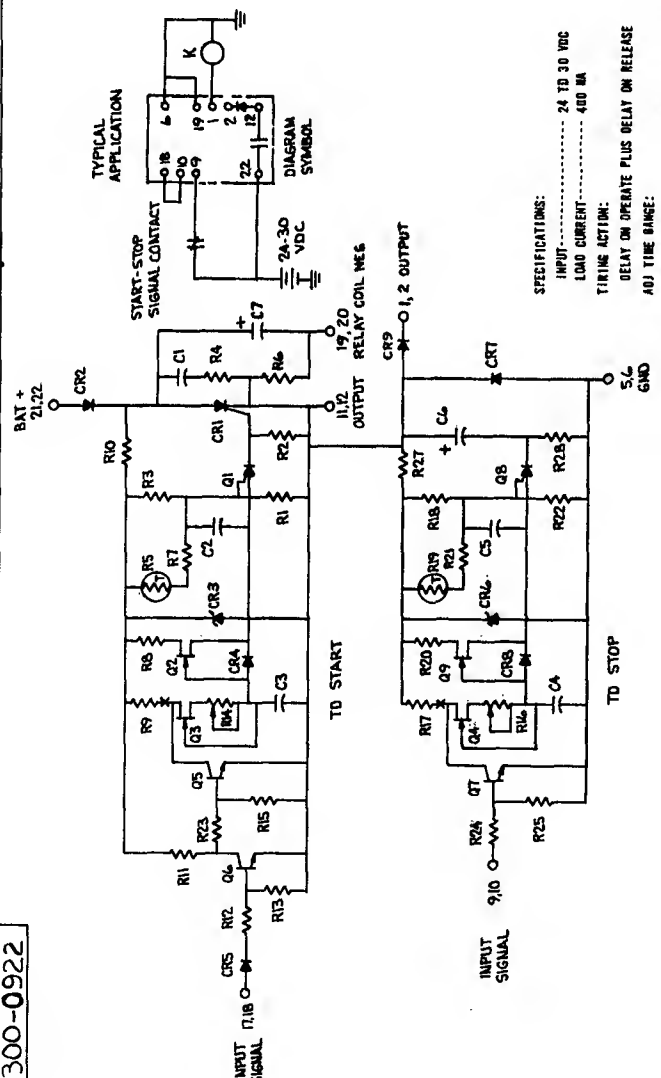
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3	W1B	1	01010
4	W1B	1	01010
5	W1B	1	01010
6	W1B	1	01010
7	W1B	1	01010
8	W1B	1	01010
9	W1B	1	01010
10	W1B	1	01010
11	W1B	1	01010
12	W1B	1	01010
13	W1B	1	01010
14	W1B	1	01010
15	W1B	1	01010
16	W1B	1	01010
17	W1B	1	01010
18	W1B	1	01010
19	W1B	1	01010
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96	W1B	1	01010
97	W1B	1	01010
98	W1B	1	01010
99	W1B	1	01010
100	W1B	1	01010

DATE 2-3-72
 DRAWN BY
 CHECKED BY
 APPROVED BY
 DIVISION OF ONAN CORPORATION
 Minneapolis, Minnesota
 MODULE-24 V TO 12V CONV
 300-848
 B

[illegible][illegible]

300-0922

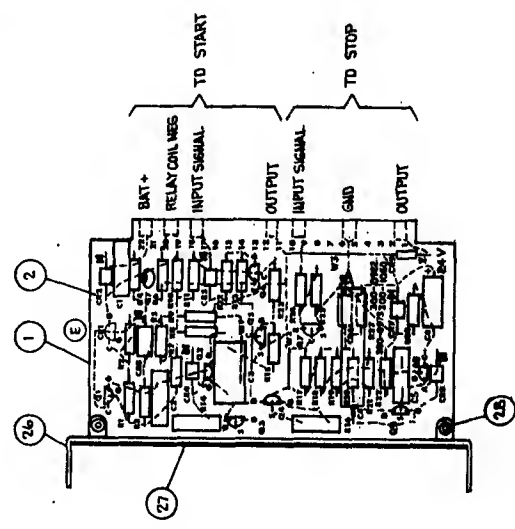
REV	DATE	BY	CHKD	APPD	DESCRIPTION
1	9-26-73				A WAS QTY 5 & ADDED C69
2	9-26-73				B WAS M12 & QTY IS IN
3	9-26-73				C REL (ITEM 5) WAS 350-522
4	9-26-73				D CRI (ITEM 8) WAS 364-11
5	9-26-73				E TURNED CRI 180°



NOTES:

TEST AND ADJUST PER DAG 53381746

SPECIFICATIONS:
 INPUT..... 24 TO 30 VDC
 LOAD CURRENT..... 400 MA
TIMING ACTION:
 DELAY ON OPERATE PLUS DELAY ON RELEASE
 ADJ TIME RANGE:
 START..... 0.5 TO 15 SECONDS
 STOP..... 0.5 TO 5 MINUTES
 TOLERANCE..... ±20%
 TEMPERATURE:
 OPERATE..... 0°C TO 45°C
 STORAGE..... -55°C TO +75°C
 REVERSE POLARITY PROTECTED ON T.D. START SECTION



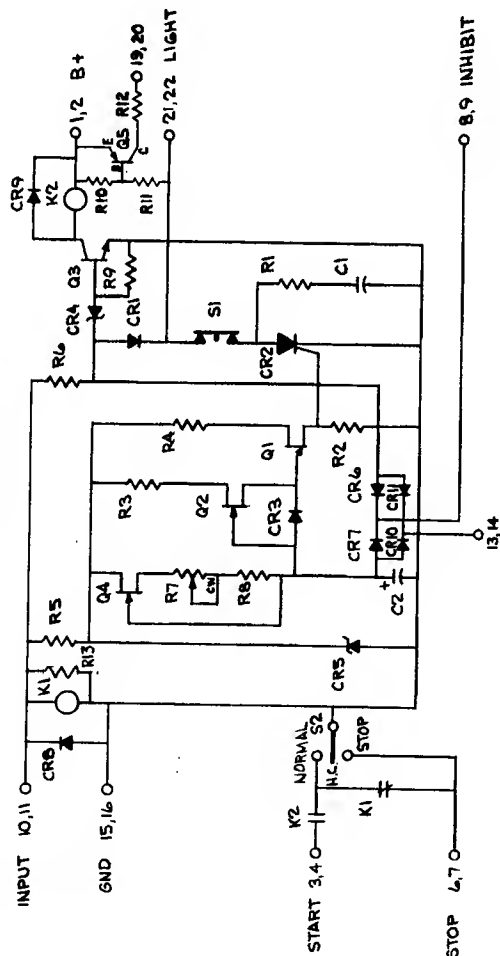
300-0922

ITEM	QTY	PART NO.	DESCRIPTION OR MATERIAL
1	1	300-0922	MODULE-T.D. START-STOP 24V
2	1	300-0922	MODULE-T.D. START-STOP 24V
3	1	300-0922	MODULE-T.D. START-STOP 24V
4	1	300-0922	MODULE-T.D. START-STOP 24V
5	1	300-0922	MODULE-T.D. START-STOP 24V
6	1	300-0922	MODULE-T.D. START-STOP 24V
7	1	300-0922	MODULE-T.D. START-STOP 24V
8	1	300-0922	MODULE-T.D. START-STOP 24V
9	1	300-0922	MODULE-T.D. START-STOP 24V
10	1	300-0922	MODULE-T.D. START-STOP 24V
11	1	300-0922	MODULE-T.D. START-STOP 24V
12	1	300-0922	MODULE-T.D. START-STOP 24V
13	1	300-0922	MODULE-T.D. START-STOP 24V
14	1	300-0922	MODULE-T.D. START-STOP 24V
15	1	300-0922	MODULE-T.D. START-STOP 24V
16	1	300-0922	MODULE-T.D. START-STOP 24V
17	1	300-0922	MODULE-T.D. START-STOP 24V
18	1	300-0922	MODULE-T.D. START-STOP 24V
19	1	300-0922	MODULE-T.D. START-STOP 24V
20	1	300-0922	MODULE-T.D. START-STOP 24V
21	1	300-0922	MODULE-T.D. START-STOP 24V
22	1	300-0922	MODULE-T.D. START-STOP 24V
23	1	300-0922	MODULE-T.D. START-STOP 24V
24	1	300-0922	MODULE-T.D. START-STOP 24V
25	1	300-0922	MODULE-T.D. START-STOP 24V
26	1	300-0922	MODULE-T.D. START-STOP 24V
27	1	300-0922	MODULE-T.D. START-STOP 24V
28	1	300-0922	MODULE-T.D. START-STOP 24V
29	1	300-0922	MODULE-T.D. START-STOP 24V
30	1	300-0922	MODULE-T.D. START-STOP 24V
31	1	300-0922	MODULE-T.D. START-STOP 24V
32	1	300-0922	MODULE-T.D. START-STOP 24V
33	1	300-0922	MODULE-T.D. START-STOP 24V
34	1	300-0922	MODULE-T.D. START-STOP 24V
35	1	300-0922	MODULE-T.D. START-STOP 24V
36	1	300-0922	MODULE-T.D. START-STOP 24V
37	1	300-0922	MODULE-T.D. START-STOP 24V
38	1	300-0922	MODULE-T.D. START-STOP 24V
39	1	300-0922	MODULE-T.D. START-STOP 24V
40	1	300-0922	MODULE-T.D. START-STOP 24V
41	1	300-0922	MODULE-T.D. START-STOP 24V
42	1	300-0922	MODULE-T.D. START-STOP 24V
43	1	300-0922	MODULE-T.D. START-STOP 24V
44	1	300-0922	MODULE-T.D. START-STOP 24V
45	1	300-0922	MODULE-T.D. START-STOP 24V
46	1	300-0922	MODULE-T.D. START-STOP 24V
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71	1	300-0922	MODULE-T.D. START-STOP 24V
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73	1	300-0922	MODULE-T.D. START-STOP 24V
74	1	300-0922	MODULE-T.D. START-STOP 24V
75	1	300-0922	MODULE-T.D. START-STOP 24V
76	1	300-0922	MODULE-T.D. START-STOP 24V
77	1	300-0922	MODULE-T.D. START-STOP 24V
78	1	300-0922	MODULE-T.D. START-STOP 24V
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81	1	300-0922	MODULE-T.D. START-STOP 24V
82	1	300-0922	MODULE-T.D. START-STOP 24V
83	1	300-0922	MODULE-T.D. START-STOP 24V
84	1	300-0922	MODULE-T.D. START-STOP 24V
85	1	300-0922	MODULE-T.D. START-STOP 24V
86	1	300-0922	MODULE-T.D. START-STOP 24V
87	1	300-0922	MODULE-T.D. START-STOP 24V
88	1	300-0922	MODULE-T.D. START-STOP 24V
89	1	300-0922	MODULE-T.D. START-STOP 24V
90	1	300-0922	MODULE-T.D. START-STOP 24V
91	1	300-0922	MODULE-T.D. START-STOP 24V
92	1	300-0922	MODULE-T.D. START-STOP 24V
93	1	300-0922	MODULE-T.D. START-STOP 24V
94	1	300-0922	MODULE-T.D. START-STOP 24V
95	1	300-0922	MODULE-T.D. START-STOP 24V
96	1	300-0922	MODULE-T.D. START-STOP 24V
97	1	300-0922	MODULE-T.D. START-STOP 24V
98	1	300-0922	MODULE-T.D. START-STOP 24V
99	1	300-0922	MODULE-T.D. START-STOP 24V
100	1	300-0922	MODULE-T.D. START-STOP 24V

REV	DATE	BY	CHKD	APPD	DESCRIPTION
1	9-26-73				A WAS QTY 5 & ADDED C69
2	9-26-73				B WAS M12 & QTY IS IN
3	9-26-73				C REL (ITEM 5) WAS 350-522
4	9-26-73				D CRI (ITEM 8) WAS 364-11
5	9-26-73				E TURNED CRI 180°

300-0926

SCHEMATIC



NOTES:

TEST AND CALIBRATE PER DRAWING 539B202.

300-0926

ITEM	REF DES	QTY	DESCRIPTION OR MATERIAL	DATE
1	350-0379	1	RESISTOR 470Ω 1/2W	7-24-72
2	350-0517	1	RESISTOR 27 Ω	7-24-72
3	362-0034	1	TRANSISTOR-PNP 2N5817	7-24-72
4	362-0031	1	TRANSISTOR-FET 2N5716	7-24-72
5	*808-0003	1	102 SOLDER	7-24-72
6	*818-0003	2	RIVET	7-24-72
7	89-2478	1	LABEL -2 TO 3 CONV	7-24-72
8	301-3371	1	PANEL-PC MTR	7-24-72
9	308-0333	1	SWITCH-PUSH BUTTON	7-24-72
10	308-0332	1	SWITCH-TOGGLE	7-24-72
11	350-0548	1	POTENTIOMETER 10 KΩ	7-24-72
12	303-0169	1	POTENTIOMETER 3.5 RES Ω	7-24-72
13	350-0394	1	RESISTOR 2 KΩ 5%	7-24-72
14	350-0526	1	RESISTOR 150 Ω	7-24-72
15	350-0536	1	RESISTOR 100 Ω	7-24-72
16	350-0536	1	RESISTOR 330 Ω	7-24-72
17	350-0536	1	RESISTOR 100 Ω	7-24-72
18	350-0536	1	RESISTOR 330 Ω	7-24-72
19	350-0536	1	RESISTOR 100 Ω	7-24-72
20	350-0536	1	RESISTOR 330 Ω	7-24-72
21	350-0536	1	RESISTOR 100 Ω	7-24-72
22	350-0536	1	RESISTOR 330 Ω	7-24-72
23	350-0536	1	RESISTOR 100 Ω	7-24-72
24	350-0536	1	RESISTOR 330 Ω	7-24-72
25	350-0536	1	RESISTOR 100 Ω	7-24-72
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29	350-0536	1	RESISTOR 100 Ω	7-24-72
30	350-0536	1	RESISTOR 330 Ω	7-24-72
31	350-0536	1	RESISTOR 100 Ω	7-24-72
32	350-0536	1	RESISTOR 330 Ω	7-24-72
33	350-0536	1	RESISTOR 100 Ω	7-24-72
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38	350-0536	1	RESISTOR 330 Ω	7-24-72
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53	350-0536	1	RESISTOR 100 Ω	7-24-72
54	350-0536	1	RESISTOR 330 Ω	7-24-72
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56	350-0536	1	RESISTOR 330 Ω	7-24-72
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88	350-0536	1	RESISTOR 330 Ω	7-24-72
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94	350-0536	1	RESISTOR 330 Ω	7-24-72
95	350-0536	1	RESISTOR 100 Ω	7-24-72
96	350-0536	1	RESISTOR 330 Ω	7-24-72
97	350-0536	1	RESISTOR 100 Ω	7-24-72
98	350-0536	1	RESISTOR 330 Ω	7-24-72
99	350-0536	1	RESISTOR 100 Ω	7-24-72
100	350-0536	1	RESISTOR 330 Ω	7-24-72

SPECIFICATIONS:

INPUT VOLTAGE..... 12.23V DC

B+ POWER..... 12.23V DC

LOAD CURRENT..... 0-5 AMP DC

MAX POWER CONSUMPTION..... 3 WATTS

STORAGE TEMP..... -40°C TO 100°C

OPERATING TEMP..... -40°C TO 80°C

OVERCRANK T.D..... 75±5 SECS

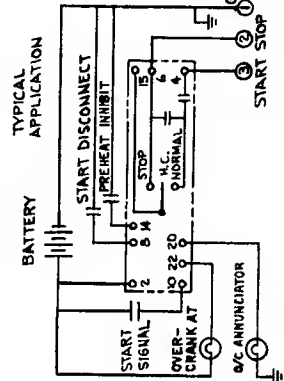
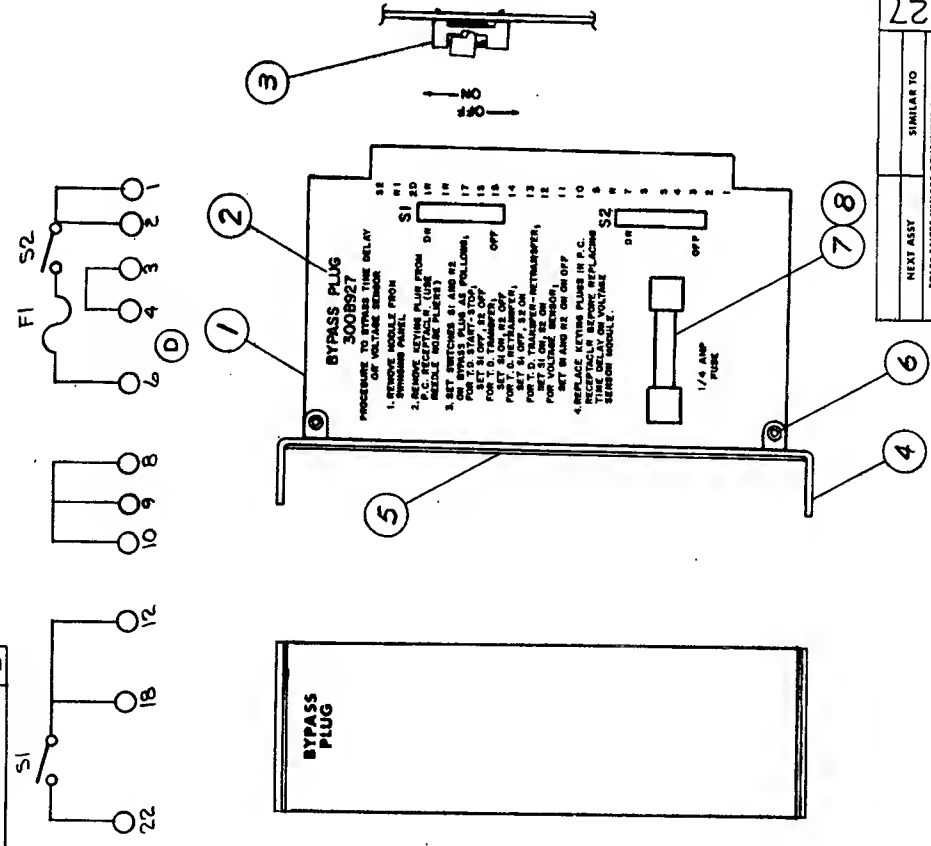


DIAGRAM SYMBOL

300-927
DWG SIZE
B

LT	REV	REVISION	DATE
A	REVISED SILKSCREEN INFORMATION		7-19-72
B	PART NO. WAS 880-12		8-1-72
C	PART NO. WAS 98-2424		8-2-72
D	ADDED CIRCUIT PATH 2101, 3104 9104R		1-31-73
E	ITEM B WAS 321-168		2-18-74



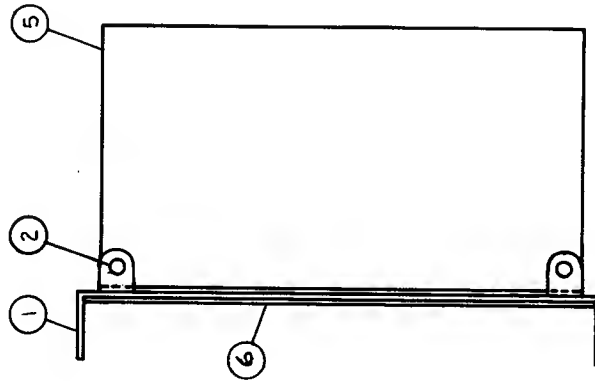
ITEM	QTY	DESCRIPTION OR MATERIAL
9	1	102 SOLOER
8	1	FUSE 1/4 AMP
7	2	CLIP-FUSE
6	2	RIVET
5	1	LABEL-BYPASS PLUG
4	1	PANEL-PC MTG
3	2	SWITCH-SLIDE
2	1	SILKSCREEN-PC BD
1	1	PRINTED CIRCUIT BOARD

ITEM	QTY	DESCRIPTION OR MATERIAL
1	1	PCB
2	1	PCB
3	1	PCB
4	1	PCB
5	1	PCB
6	1	PCB
7	1	PCB
8	1	PCB
9	1	PCB
10	1	PCB
11	1	PCB
12	1	PCB
13	1	PCB
14	1	PCB
15	1	PCB
16	1	PCB
17	1	PCB
18	1	PCB

MODULE-BYPASS PLUG

300-927

300-937		REV. SIZE B					
	LIT	REVISION		ZONE	END	CUR	DATE

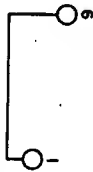


ITEM	PART NO.	QTY	SIZE	DESCRIPTION OR MATERIAL
6	88-2377	A	1	LABEL-DECORATIVE MYLAR
5	332-1501	A	1	PRINTED CIRCUIT-BLANK
4				
3	818-3	2		RIVET # 6
2				
1	301-9371	1		PANEL-PC BD

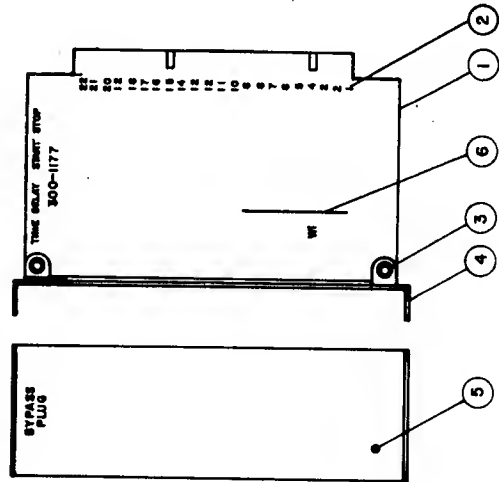
300-937		REV. SIZE B	
MR BUSHARD	DATE	BY	CHK
CR C/D			
FROM JTA VMT			
DATE	4-6-72		
REV	TV 5-5-72		
	ATSC, ATSD # ATSE		
	300-937		

300-1177

SCHEMATIC DIAGRAM



MECHANICAL ASSY



SPECIFICATIONS

300-1177

REF. DES.		QTY		UNIT		DESCRIPTION OR MATERIAL	
TWO		102		SOLDER			
WIRE		10		WIRE			
LABEL		1		LABEL			
PANEL		1		PANEL			
RIVET		2		RIVET			
SLIPSCREEN		1		SLIPSCREEN			
PRINTED CIRCUIT BOARD		1		PCB			
ITEM		QTY		UNIT		DESCRIPTION OR MATERIAL	
1		1		PCB		PCB	
2		2		RIVET		RIVET	
3		2		RIVET		RIVET	
4		1		PANEL		PANEL	
5		1		LABEL		LABEL	
6		10		WIRE		WIRE	
7		102		SOLDER		SOLDER	

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